CONSTRUCT VALIDITY OF THE I-SIP AND ITS CLINICAL UTILITY IN DIFFERENTIATING BETWEEN FACTITIOUS PSYCHOLOGICAL PRESENTATIONS (FPPs) AND MALINGERING

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Forensic researchers and practitioners continue to face challenges when attempting to differentiate deceptive response styles, notably when comparing malingering and factitious disorder. However, due to the great disparities in research available, forensic examiners may not be adequately informed for considering factitious presentations as a competing hypothesis to malingering. De-emphasis of factitious disorders may also be attributed to the lack of empirical research and poor conceptual understanding of the disorder. Velsor and Rogers conducted a thorough review of various factitious motivations, drawing a parallel to Rogers' explanatory models of malingering. Due to the need for a systematic measure of FPPs, the Inventory of Self and Interpersonal Problems (I-SIP) was developed, largely based on the explanatory models of FPP. The current study employed a construct validity approach to the I-SIP to examine its convergent and discriminant validity in a sample of 80 inpatients from a private psychiatric hospital. Providing strong evidence of construct validity of the I-SIP, dramatic differences emerged between malingered and factitious presentations with extremely large effect sizes (*d*s = 1.09 – 3.62). In particular, results indicated strong support for the nurturance explanatory model of FPPs, as over-investment in treatment providers was an especially strong discriminator (*d* = 3.62). Moreover, results highlighted the potential problem of misclassification of response styles, as the SIMS did not effectively distinguish between simulation groups. To avoid diagnostic issues, arguments are presented for the consideration of FPPs as a dimensional construct that vary over time and circumstances. Professional implications are discussed, including practical guidelines for evaluating FPPs in clinical and forensic contexts.

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CHAPTER 1

INTRODUCTION

Overview

Factitious diagnoses involve the conscious falsification of either psychological or physical symptoms and are classified as a form of intentional deception (APA, 2013). The dissimulation occurs in the absence of obvious external gains with the reasons being primarily internal, such as the reward and attention of being a patient and "playing the sick role" (APA (APA), 2013; Yates, Mulla, Hamilton, & Feldman, 2018). More generally, both physical and psychological dissimulation have been extensively studied and appear in many well-documented cases studies throughout the last century. These cases provide evidence that certain patients intentionally falsify or exaggerate their symptoms experienced in effort for internal gains (Feldman & Cunnien, 2008).

Such cases of deliberate feigning are generally categorized into factitious disorders and malingering. In contrast to factitious disorders, malingering is characterized by individuals who falsify and exaggerate symptoms for external gains or reasons, such as unwarranted financial gain or more lenient legal sentencing in criminal cases (Yates et al., 2018). Thus, the core of what differentiates malingering from factitious disorders involves the primary motivation driving the dissimulation.

According to Merten and Rogers (2017), forensic practitioners often emphasize malingering to the possible exclusion of factitious disorders. It is argued that the likely presence of a malingering bias in forensic contexts is due to the prevalence of cases in which individuals may possess strong incentives to fabricate or exaggerate symptoms in the context of the justice system (Ford, 2010; Merten & Rogers, 2017). Conversely, it is argued that a factitious bias is

present (i.e., internal motivations or adoption of sick role) for patients in more clinical, treatment-based settings. The apparent scarcity of factitious presentations in forensic contexts compared with malingering likely contributes to these assumptions (Rogers, Salekin, Sewell, Goldstein, & Leonard, 1998; Young, 2015). In addition, DSM-5's explicit consideration of antisocial personality disorder (APD) is especially salient in the context of criminal forensic referrals. This consideration plays an important role in the emphasis of malingered response styles in forensic contexts.

Factitious disorders hold particular importance for forensic practitioners in classifying dissimulation. When feigning is suspected, forensic psychologists may often be faced with rival hypotheses of whether the feigning encompasses external motivations (i.e., malingering) or the absence of obvious external rewards (i.e., factitious disorders; APA, 2013). Specialty guidelines inform forensic psychologists to take a balanced and unbiased approach to assessment, expecting that they "weigh all data, opinions, and rival hypotheses impartially." (APA, 2013, p. 9). However, due to the great disparities in research available, forensic examiners may not be adequately informed for considering factitious disorders as a competing hypothesis to malingering. De-emphasis of factitious disorders may also be attributed to the lack of empirical research and poor conceptual understanding of the disorder (Cunnien, 1997).

A resulting fundamental concern involves the potential misclassification of feigning presentations as malingering, when rival hypotheses were not seriously considered (Rogers, Jackson, & Kaminski, 2005). An increased recognition of factitious presentations may lead to greater understanding of the underlying motives of patients. Forensic practitioners want to be accurate in classifying examinees, particularly in high stakes contexts (e.g., prison sentencing). Vastly different outcomes might possibly occur for examinees determined to be malingering as

compared to factitious disorders. For example, plaintiffs feigning to gain monetary compensation might be viewed more punitively in the judicial system than those who are exaggerating symptoms because of emotional or dependent needs.

As noted, very little research has been conducted on factitious disorders despite strong clinical interests. Feldman and Cunnien (2008) believed the poverty of research stemmed from the difficulty in objectively measuring factitious motivations. In contrast, cases of malingering appear to have clearer motives for external gain (e.g., lesser criminal sentences or monetary compensation). Given the lack of objective measures, current factitious literature understandably consists of mostly case studies. In particular, these case reports have formed the basis thus far for the development of detection strategies for factitious disorder (Feldman & Cunnien, 2008; Yates et al. 2018). The current study aims to address the lack of standardized measurement for factitious response styles.

This chapter is organized into five broad sections. To provide a thorough overview, the first section covers the historical development of factitious disorders. Next, the second section examines the evolution of factitious disorders as a diagnostic category; it centers on specific changes to DSM criteria through subsequent editions. The third section compares feigned presentations, most notably malingering and factitious disorders. It further discusses the forensic implications. The fourth section provides a parallel discussion of explanatory models for malingering and factitious disorders. This section outlines the methodology that is used in the current study. Lastly, the fifth section introduces the current study and its hypotheses.

Origins of Factitious Disorder

The first usage of the term “factitious disorder” has been attributed to Hector Gavin (1838), who references the *Cyclopedia of Practical Medicine* (Forbes, Tweedie, & Conolly,

1833) as his original source for the term. Gavin used the term “factitious” to differentiate types of feigning in his book on military malingering for cases in which clinical evidence was fabricated or distorted. The term was used sporadically throughout the next century. Interestingly, most cases of factitious disorder have historically been heavily weighted toward medical conceptualizations of the disorder and involved “a collection of exotic medical and surgical syndromes” (O’Shea, 2003, p. 33). However, modern conceptualization of factitious disorder was not recognized until Richard Asher’s (1951) seminal paper describing his clinical experiences with patients with factitious disorders (Kanaan & Wessely, 2010).

Asher’s establishment of Munchausen’s syndrome sparked the widespread recognition of factitious disorder as we know it today. Asher (1951) applied the term “Munchausen’s syndrome” to describe patients that had numerous hospitalizations, surgeries, and those that lives generally revolved around their feigned medical illness. These patients were typically admitted to hospitals after serious physical complaints of stomach, blood, or neurologic issues, although medical tests failed to corroborate the patients’ subjective complaints (Feldman & Cunnien, 2008). Regarding medical management, typical patients with factitious disorder were described as uncooperative, often had prior admissions using different aliases, and regularly discharged themselves hastily against medical recommendations. Scholars now believe Asher’s conceptualization of Munchausen’s syndrome to be a rare, and likely untreatable form of factitious disorder (Feldman, 2004).

Following Asher’s (1951) paper, the reports on the diagnosis of factitious disorders skyrocketed, rising from 2 cases in 1961 to 131 cases in 2001 (Kanaan & Wessely, 2010). Since the recognition of Munchausen’s and related factitious disorders, reports have been documented from nearly every medical specialty of patients’ feigning symptoms; they now account for about

5% of all physician encounters (Kanaan & Wessely, 2010).

The existence of a diagnostic void was recognized, as clinicians were faced with feigned presentations that did not neatly fit into already established diagnostic categories, most notably, hysteria and malingering. Hysteria, malingering, and factitious disorder are similar in that they are falsified presentations of sickness (Spence, 2001). In hysteria, patients truly believe they are ill and are in need of medical or psychological attention. In cases of malingering, the patient is pretending to be ill for some sort of external gain and is typically viewed as a criminal act. But the mechanisms behind and consequences of factitious disorders are much more ambiguous and demand clearer understanding.

Patients with hysteria, factitious disorders, and malingering may have similar clinical presentations, and thus, practicing clinicians must decide on their interpretations of motives in reaching a diagnostic conclusion. Because of the similar clinical presentations, determinations cannot be made on the basis of symptoms or associated features alone (Feldman & Eisendrath, 1996). Kanaan and Wessely (2010) suggest if the patient does not possess awareness about their falsified presentation, then hysteria may be the appropriate diagnosis. An additional consideration involves the locus of motivation for dissimulation (i.e., internal vs. external). Thus, determining the patient's motivation and self-awareness in reaching a diagnosis relies entirely on clinicians' judgment (Spence, 2001). The growing problem of diagnostic difficulty and ambiguity of factitious disorders deserves more scholarly attention.

Diagnostic Etiology and Categorization

DSM-III

Due to diagnostic issues, *DSM-III* (APA, 1980) created an entirely new category to account for factitious disorders, which encompassed presentations of intentionally produced

physical or psychological symptoms (Caselli, Poloni, Ielmini, Diurni, & Callegari, 2017; Hyler & Spitzer, 1978). Its intended purpose was to "fill the large middle ground between hysterical disorder and malingering" (Hyler & Spitzer, 1978, p. 1502). It was recognized that not all forms of feigning might be dichotomized as either (a) motivations for external incentives or (b) patients that truly thought they were ill. Therefore, not all patients were neatly categorized as malingering or hysteria. Factitious disorders were created to account for feigning motivated by internal incentives with no apparent goal other than to assume the role of the patient (Hyler & Spitzer, 1978; Turner, 1999).

Factitious disorders were first differentiated from hysteria by levels of conscious motivation; hysteria symptoms are produced unconsciously whereas factitious symptoms are created consciously (Hyler & Spitzer, 1978). Second, factitious disorders were distinguished from malingering by motivation of external versus internal gains. Diagnostic criteria indicated factitious disorders involve internal motives, such as psychological needs, rather than external gains associated with malingering, such as the desire to avoid punishment (Kanaan & Wessely, 2010).

In *DSM-III* (APA, 1980), the criteria for factitious disorders were described as the "intentional production or feigning of physical or psychological signs or symptoms" (Criterion A), that are "motivated by a desire to assume the sick role" (Criterion C). As an exclusion criterion, symptoms produced are "not being better explained by any other mental disorder" (Criterion B; APA, 1980, p. 287). Upon its initial classification, four subtypes of factitious disorder must be considered: (a) predominantly physical signs and symptoms, (b) predominantly psychological signs and symptoms, (c) combined type, and (d) factitious disorder not otherwise specified.

DSM-III-R and DSM-IV

DSM-III-R (APA, 1987) inclusion criteria for factitious disorder largely remained the same. However, a single exclusion criterion was added: factitious disorder "must not occur exclusively under the course of another Axis I disorder, such as schizophrenia" (APA, 1987, p. 319). The rationalization for this exclusion criterion was not articulated and is difficult to comprehend. It appears to suggest that patients with other chronic mental disorders (e.g., severe depression or intellectual impairment) should not be diagnosed with factitious disorders. However, the rationale for this exclusion appears questionable, because individuals plausibly could engage in factitious presentations, separate from their serious mental disorders (Velsor & Rogers, 2019). For example, an individual with chronically severe depression may also factitiously present a medical syndrome.

DSM-IV's (APA, 1994) changes to factitious disorders diagnostic criteria involved minor adjustments. The internal production of feigning and the motivation to assume the sick role stayed the same, but an additional criterion was added that stated, "external incentives (such as economic gain) must be absent" (APA, 1994, p. 474). This modification presumably represents an attempt to differentiate the external gain core feature of malingering from factitious disorder. Inexplicably, the explicit criterion requiring, "not explained by any other mental disorder" (APA, 1980, p. 287) was removed from *DSM-IV*. In the subsequent *DSM-IV* text revision (*DSM-IV-TR*; APA, 2000), the criteria and language remained identical.

DSM-5

DSM-5 represented sweeping changes to the diagnostic classification of factitious disorders. Until then, factitious disorder was placed in its own diagnostic category. In *DSM-5*, it was subsumed in the category of *Somatic Symptom and Related Disorders*. This important

change presumably resulted from the shift in research and literature to focus on factitious disorders with somatic symptomology that are predominantly seen in medical settings. In line with *DSM-5*'s (APA, 2013) effort to reduce the number of diagnoses, the subtypes (physical and psychological) were also removed.

Factitious disorder by proxy is now modified from a provisional research status, as it was in *DSM-IV-TR* (APA, 2000), to a full *DSM-5* diagnosis. The subcategories consist of 'factitious disorder imposed on the self' (FDIOS) and 'factitious disorder imposed on another' (FDIOA; APA, 2013, p. 324). FDIOS entails falsification of physical or psychological symptoms or the induction of injury or disease on oneself. In contrast, FDIOA includes the same criteria but involves another person (i.e., the victim) as impaired, injured, or ill.

A major shift in *DSM-5* involved its specification regarding external motivation. Once a core requirement for diagnosis of factitious disorder, the inclusion criterion, the desire to play the sick role of a patient (for oneself or through another) has been removed in *DSM-5* criteria (APA, 2013). This adjustment in classification was aimed at shifting focus away from understanding the underlying motivations in favor of more objective measures, such as identifying false symptoms (Yates et al., 2018). This change also appears to be consistent with ICD-10, with the goal of capturing diagnoses with greater specificity (Andrews, Slade, & Peters, 1999). It could be argued that identifying intentionally produced physical symptoms, such as ingesting harmful substances for the purpose of appearing ill, should be more easily detected than one's underlying motivation. With the focus on factitious disorder in medical settings, the goal of identifying falsified symptoms objectively follows this logic. However, this shift may also de-emphasize the investigation of non-medical factitious presentations for in which objective measures are not feasible.

DSM-5's four criteria for factitious disorder (APA, 2013, p. 324) are as reproduced:

> (A) The falsification of physical or psychological signs or symptoms, or induction of injury or disease, associated with identified deception.
>
> (B) The individual presents himself/herself or another individual to others as ill, impaired, or injured.
>
> (C) The deceptive behavior is evident even in the absence of obvious external rewards.
>
> (D) The behavior is not better explained by another mental disorder, such as delusional disorder or another psychotic disorder.

In summary, factitious disorders as a diagnostic category evolved throughout *DSM* editions, though *DSM-5* represents the most extensive changes. The modifications in *DSM-5* reflect great conceptual shifts to diagnostic classification. Shifts to move away from considering underlying motivation in effort to increase objectivity largely ignores the complexity of factitious disorders and introduces substantial diagnostic issues.

Diagnostic Issues

The intentionality of feigning and underlying motivation of factitious disorder differentiates it diagnostically from other disorders that present in a similar fashion, like somatic symptom disorder (Ford, 2010; Kanaan & Wessely, 2010). In somatic symptom and related disorders, like functional somatic syndromes (e.g., chronic fatigue), medically unexplained symptoms are putatively produced unconsciously (Feldman, 1996). In factitious disorders, the deceptive illness is considered to be an outcome of an intentional desire to satisfy certain internal goals (Yates & Feldman, 2016). Internal incentives may include the desire for extra medical attention and nurturance. Sharma and Manjula (2013) indicated that both somatic symptom disorder and factitious disorder share the commonalities of social dysfunction, increased usage of healthcare services, and high levels of dissatisfaction for both patients and treating clinicians.

Voluntary control or intentional feigning is a well-established and accepted component of

factitious disorders, but the diagnostic standards leave something to be desired. Nearly two decades ago, Overholser (1990) provided explicit criteria regarding the voluntarily control of symptoms. He stated the following as criteria: (a) admission of deceit by the patient, (b) presence of physiologically impossible symptoms, (c) observable evidence, which is contradicted by objective testing, (d) physical evidence, and (e) non-stereotypical response to treatment. However, "intention" and "voluntariness" do not necessarily explain one's motivation for deception, and thus, do not provide clarity for diagnostic standards. Eisendreth (1994) analogized factitious disorders to phobias, indicating that persons may act intentionally but may lack awareness of latent psychological motivations. In other words, individuals may possess an appreciation of their feigned behavior — much like individuals with phobia recognize their specific fears. However, they do not acquire a full understanding as to *why* they are engaging in pathological behavior, whether that be strict avoidance in phobia or feigned symptoms in factitious disorder (Eisendreth, 1994).

DSM-5 does not contain specifiers for severity levels of factitious disorder, which appears inconsistent with the overall *DSM-5* approach. Much earlier, Eisendrath (1994) suggested that the level of enactment of factitious behavior could provide insight into the severity level. For him, circumscribed production of factitious symptoms or complaints constitutes the lowest level of enactment, whereas the simulation of disease or extreme medical or psychological issues typically comports with most severe level of enactment.

The formal diagnoses of factitious disorder only occur when patients are either detected or admit to feigning (Guzman & Correll, 2008). Because it is difficult to discern motivation and the absence of clear external incentives, clinicians must rely on circumstantial evidence to first develop conjecture and then confirm evidence of feigning (Lawlor & Kirakowski, 2014). This

approach poses major challenges to clinicians, as patients with factitious disorder might put in substantial effort to keep their feigning behavior from becoming detected. Additionally, accusing an individual of feigning a mental or physical illness represents a strong allegation that clinicians are likely hesitant to make unless there is certainty. Taken together, the diagnostic conceptualization of factitious disorder lacks clear criteria, which poses a diagnostic problem for practitioners.

Physical Factitious Disorders

As noted earlier, physical factitious disorders are studied more frequently than their psychological factitious counterparts, likely because medical symptoms (e.g., ingested substances) may be more easily detected. Patients with physical-factitious disorder typically appear in physician's offices, emergency departments, or other medical specialty departments (Yates et al., 2018). The American Psychological Association (APA, 2013) defines medical falsification in three general ways. First, physical-factitious presentations may consist of exaggerated symptoms and unequivocal lies about current or past symptoms and history (APA, 2013; Yates & Feldman, 2016). Second, it may involve the production of compelling signs or symptoms by (a) manipulations to prolong or exacerbate an existing illness, or (b) actual self-induction of disease (APA, 2013). A third approach to medical falsification may involve ingesting harmful substances or mutilating the skin to appear ill (Yates et al. 2018). Most commonly, patients with physical-factitious presentations combine the three general approaches (Ferrara et al., 2013).

Physical-factitious disorder cases have been documented across a variety of medical settings. According to Fliege et al. (2007), the majority of factitious cases seen in dermatology settings involve patients presenting with rashes, burns, infections, or non-healing injuries.

Neurological or endocrinology settings, with factitious complaints commonly involve seizures or thyroid dysregulation (Ashawesh, Murthy, & Fiad 2010; Bauer, 1996). Additionally, medical patients with physical-factitious disorder may present in general practices with complaints of emergent concerns, such as coughing up blood (Kokturk et al., 2006).

The literature on physical-factitious disorders clearly illustrates nearly any medical issue can be feigned. Moreover, individuals have access to medical information readily available on the Internet. They are able to order pharmaceutical drugs online, and have access to other methods that allow them to deceptively present their illness as genuine (Ferrara et al., 2013). Because factitious disorders require compelling evidence, the medical cases most frequently discovered to be factitious involve self-induction of illness or simulation of symptoms (Yates et al., 2018). As noted, this stringent requirement of corroborative proof for deception severely reduces the number to only provable cases. Thus, it creates the perspective that physical-factitious disorder is limited to only rare cases, when in reality, they likely occur more frequently than reported.

Psychological Factitious Disorders

As previously discussed, factitious psychological disorders are difficult to study empirically due to the complexity and diversity of clinical presentations (Feldman, 2004). Evidence of falsification becomes even more challenging due to the lack of physiological data. Despite this challenge, Carney and Brown (1983) estimated that psychological presentations of factitious disorder comprise around 40% of the factitious disorder imposed on self cases (FDIOS). According to Popli, Masand, and Dewan (1992), underestimates are likely due to the complexities in the diagnostic considerations. The exclusive diagnosis of factitious disorder is considered rare because of extensive comorbidity with mental disorders (e.g., personality

disorders, mood disorders, and chemical dependency) (Cunnien, 1997; Feldman, Ford, & Reinhold, 1994).

In summary, the conceptual nature of psychological-factitious disorder is poorly understood even though researchers have identified several key facets of the disorder. These conceptual facets will be discussed later in the section on explanatory models of factitious psychological presentations.

Comparison of Malingering and Factitious Disorders

As possibly a false dichotomy, the source of primary motivation continues to be the decisive factor for differentiating factitious disorder and malingering. If external gains are present, then the patient's diagnosis of factitious disorder is excluded and the classification of malingering is proposed (Cunnien, 1997; Ford, 2010; Overholser, 1990). Compellingly, Cunnien (1997) argued that this dichotomy contradicts the clinical knowledge of multifaceted levels of behavior. He contended that the presence of external gain should not, by itself, disqualify an individual for the diagnosis of factitious disorder. As he indicated, a patient could be engaging in deceptive behavior and exaggerating pain for both external gains (e.g., obtaining narcotics for chemical dependency) and internal gains (e.g., avoiding heated conflicts with a spouse).

The assumption that the inclusion or exclusion of incentives alone can be used diagnostically overlooks day-to-day reality. Incentives free of liabilities do not occur when individuals are feigning in regard to their or others' health. As Vitacco (2018) indicated, parents presenting with FDIOA risk facing significant criminal charges if detected, in addition to possible harm to their children. A more balanced approach would consider both incentives and disincentives for feigning behavior. When making a decision, persons must consider (a) the purpose of the decision, (b) those who could potentially be affected, and (c) examine alternative

options (Satay, 2008). McGraw, Larsen, Kahneman, and Schkade (2010) suggested that decision-making processes involve examining potential risk when comparing possible advantages or disadvantages.

In summary, the conceptual nature of malingering and factitious disorder are similar. Thus, the line of distinction between internal and external motive is blurred (Turner, 1999; Velsor & Rogers, 2019). Building on their similarities and differences, explanatory models are presented in the next section.

Explanatory Models of Malingering

Rogers (1990a) developed an explanatory model of malingering to examine potential motivations behind malingering both conceptually and empirically. It is important to distinguish the definition of malingering from explanatory models of malingering. DSM-5 defines malingering as the "intentional production of false of grossly exaggerated physical or psychological problems" (APA, 2013, p. 726). The definition is widely accepted, but significant criticism persists about the ways in which the *DSM* classifies malingering because of its lack of a clear explanation regarding motivation (Rogers, 1990b).

The classification of malingering appears to be largely based on one explanatory model, even though not formally incorporated into *DSM*'s definition. As an overview, the explanatory models are: pathogenic, adaptational, and criminological. The explanatory models involve goals for developing a greater understanding of the complex motivations to malinger. From an empirical perspective, subsequent research by Rogers, Sewell, and Goldstein (1994) and Rogers, Salekin, Sewell, Goldstein, and Leonard (1998) on the explanatory models utilized prototypical analyses. A combined sample of 521 highly experienced forensic experts rated prototypical attributes associated with the three explanatory models of malingering listed above.

The pathogenic model of malingering posited that feigning represented individuals' ineffectual attempts to control underlying psychopathology by consciously reproducing symptoms of mental disorders (Rogers 1990a, 1990b). This model predicts that a progressive loss of control gives way to genuine symptoms. The pathogenic model also posits that individuals feel trapped by their psychopathology and compelled to feign mental disorders (Rogers 1990a).

Pathogenic explanations appear to be the least convincing model for malingering, with a central theme involving an underlying genuine disorder. It explained the motivation for malingering as an early or prodromal sign of a severe mental disorder (Rogers et al., 1994). The pathogenic model — compared to the other explanatory models — had the lowest prototypical ratings among forensic experts (Rogers et al., 1994). For instance, experts gave a mean rating of 1.76 (on a Likert scale from: 1 = *unimportant to malingering* to 7 = *very important to malingering*) for pathogenic explanations. Contrary to the pathogenic model prediction, malingerers have not traditionally shown the deterioration of feigned into genuine symptoms. Rogers et al.'s (1998) prototypical ratings comparing forensic and non-forensic populations generally confirmed the relative unimportance of the pathogenic model to explanations of malingering. Additionally, economic motivations, which are common in cases of malingering, remain inconsistent with the pathogenic model (Rogers et al., 1994; 1998).

The criminological model of malingering explains motivations in terms of antisocial attributes of an individual (Rogers, 1990a). Criminological explanations align closely with the *DSM* approach, which indicates malingering should be strongly suspected if a person has antisocial personality disorder (Berry & Nelson, 2010). Considering this alignment with the *DSM* approach, the criminological model emphasizes a general assumption of "badness," such as bad

circumstances (e.g., jails or prisons) and acting uncooperative when evaluated (Rogers & Bender, 2018). The criminological model has fairly high prototypical ratings from forensic experts, providing convincing evidence that the motivation to malinger is often antisocially based (Rogers et al., 1994). The two highest prototypical items consist of, (a) not exhibiting responsibility for the problems they cause others (M = 5.11) and (b) a lack of guilt for feigning psychological problems (M = 4.50).

Most recently, the adaptational model explains motivations for malingering in terms of a constructive attempt to avoid adversarial consequences (Rogers, 1990a). Thus, malingerers perceive their circumstances to be both adversarial and risky. They may view malingering as their most favorable or least adversarial option (Rogers, 1990b). Rogers and colleagues (1994) found prototypical analyses of facets associated with the adaptational model received high prototypical ratings. Highly rated prototypical items included, (a) motivation to malinger based on an attempt to cope with very difficult circumstances (M = 4.88) and (b) weighing their alternatives before deciding to feign (M = 4.11) (Rogers et al., 1994). Overall, many forensic experts agree that an adaptive motivation to malinger is a compelling explanation.

Explanatory Models of Factitious Psychological Presentations

This central section applies explanatory models to factitious-psychological presentations. As an important distinction, the current paper focuses on factitious psychological presentations (FPPs) rather than factitious disorder for three primary reasons. First, *DSM-5* eliminated the subtype diagnoses of psychological factitious disorder and physical factitious disorder at both diagnostic and specifier levels. Second, it is uncertain if factitious disorders should have ever qualified as a formal diagnosis. On this point, Rogers, Bagby and Rector (1989) questioned the legitimacy of factitious disorder as a diagnosis due to the absence of clearly defined inclusion,

exclusion, or outcome criteria. Third, dissumulation based soley on the presence of external rewards provided a questionable demarcation between a *DSM* diagnosis (factitious disorder) or a V code (malingering). Based on these reasons, Velsor and Rogers (2019) concluded that FPP should be considered a dimensional construct rather than a categorical diagnosis.

The explanatory models of malingering continue to be valuable in delineating the underlying motivation for feigning. Thus, as a beginning point, these models are investigated for FPPs.

In an earlier review, Rogers (2004) extrapolated from the explanatory models of malingering to factitious disorders. At that time, most studies emphasized pathogenic motivations with psychodynamic driven theories (e.g, disrupted family relations and sexualized speculations). As a result, behavioral models accounting for symptom production or potential secondary gain were largely ignored in favor of pathogenic explanations. Much more recently, Velsor and Rogers (2019) represented the first systematic effort to examine motivations for FPPs via explanatory models without an almost exclusive focus on psychodynamically-based theories.

The following sections detail the findings in the literature on factitious disorder and discusses the literature in terms of components of explanatory models of FPPs. Table 1 summarizes the key findings for four FPP explanatory models (.

Pathogenic Model

Similar to malingering, the FPP pathogenic model posits an underlying genuine disorder and a tension between an unawareness of the underlying illness and deliberate feigning of a mental disorder (Rogers, 1990a; 1990b). Various conceptual components of factitious disorder appear to fit into this explanation as a major motivation to feign. This section begins with a review of the underlying disorders in FPPs. It continues with an examination of affective

elements of FPP motivation. The final component addresses behavioral aspects, such as addictive and demanding behaviors of FPPs from the perspective of the pathogenic model.

Pathogenic explanations of FPPs central component involve the presence of an underlying genuine disorder. Yates et al. (2018) found that factitious symptoms often emerge after psychologically meaningful conflicts, either occupationally or interpersonally, and these patients often exaggerate real, pre-existing symptoms. The resulting fabrication of symptoms can in turn allow the patient to ignore the psychological consequences of real ongoing stressors in their life. Playing the sick role may allow individuals to engulf themselves in fantasy life and escape their real stressors and psychopathology. As an alternative to serving the purpose of engaging further in the sick role of the patient, it is possible individuals with FPP lack insight into their experienced symptoms (Yates et al., 2018).

Lawlor and Kirakowski (2014) found that those with factitious disorder felt like their genuine disorder felt more validated if they intentionally exaggerated its severity. Because their genuine disorders were not being acknowledged sufficiently, exaggerating symptoms made them feel more supported and legitimized. Yates and colleagues (2018) indicate that a considerable proportion of FPP presentations appear context-driven, briefly developing as a result of underlying psychopathology and stress. Similarly, Lawlor and Kirakowski's (2014) notion of feeling dismissed or discounted may provide the context for motivation to amplify symptoms.

Parker's (1996) findings provide additional support to pathogenic explanations of an underlying genuine disorder in FPPs. He indicated that when factitious patients submit to psychological testing, traits of psychopathic deviance, hysteria, paranoia, hypochondriasis, and depression may be documented. When individuals express more somatic and affective symptoms, it is likely that their focus on symptoms intensifies the salience of their distress level.

This proposition contrasts with the notion of FPP functioning as an alleviation of stressors (Yates et al., 2018). Feeling as if genuine disorders are invalidated or feigning emerging from psychopathy to alleviate stress could contribute to maintaining FPPs, but the underlying motivations differ.

Negative affective states also appear to be central to pathogenic explanations of FPPs. Feldman (2004) discussed the element of helplessness and contributes potential insight into how FPP behavior is preserved over time. He concluded that FPP behaviors were maintained by individuals feeling helpless and trapped in their patient role. Some patients with FPP may acknowledge and recognize the maladjusted nature of their behavior, but may not be able to establish alternative options and thus, feel cornered (Feldman, 2004).

Lawlor and Kirakowski (2014) built on the component of feeling trapped and helpless and extended it to severe fear. The researchers conclude that FPP behavior may be maintained because of patients' fear of disclosing their feigning behavior to loved ones or healthcare professionals. Patients may fear (a) loss of support and trust if they disclose and may also, (b) lose a familiar coping method. The driving force with severe fear appears to be negative reinforcement (Lawlor & Kirakowski, 2014). Factitious patients may be fearful of facing their true underlying problems if they cease feigning behavior, which supports the pathogenic explanation that there is an underlying genuine disorder.

In addition to FPPs being maintained by negative affective states, findings indicate strong behavioral components. Lawlor and Kirakowski's (2014) discussion of the addictive element of FPP suggests a rewarding component, whereas Feldman's (2004) concept of helplessness shows a more negative side of how FPPs are preserved. Lawlor and Kirakowski (2014) discovered that many individuals with factitious disorder acknowledged issues with deterrence and restraint from

exaggerating or fabricating symptoms, but nonetheless, still felt addicted to feigning. Based on Orford's (2001) excessive appetite model, as behaviors become more rewarding, they become increasingly addictive. Thus, persons with FPPs gain more emotional rewards, such as increased attention and care, the feigning behavior becomes more addictive, and a cycle is produced. Some persons felt their FPP behavior was uncontrollable, and thus, their needs to continue their FPP were stronger than their needs to stop (Lawlor & Kirakowski, 2014).

With the pathogenic model, Yates et al. (2018) discussed a demanding element to factitious disorder, as patients tend to have inordinate comfort in playing the role of a patient. The demanding element of factitious presentations could possibly result from an underlying genuine disorder, a major premise of the pathogenic explanatory model. Alternatively, it may be considered an emotional expression of FPP as expressed in their demanding of treatment and care. Moreover, Yates and colleagues (2018) indicate factitious patients tended to present with an aggressive demandingness of treatment if they do not get the care they believe is deserved.

A self-destructive component to the nature of factitious disorders in line with the overarching demanding element appears to fit into the pathogenic explanation. Blatant self-harm is often involved in cases of factitious presentations, but this is primarily recognized in physical cases (e.g., ingesting substances to have the appearance of being ill) (Hamilton, Feldman, & Janata, 2009). Even though some factitious patients realize the self-destructive nature of their feigning behavior, they still experience feelings of being trapped and view this as a way to demand treatment (Feldman, 2004).

In summary, pathogenic explanations of FPPs involve an underlying genuine disorder that may manifest as (a) as response to alleviate stressors (Yates et al., 2018) (b) genuine disorders feeling invalidated (Lawlor & Kirakowski, 2014). Parker (1996) indicated that FPPs

may emerge when psychological traits and disorders are present, such as depression or hypochondriasis. According to pathogenic explanations, FPPs may be maintained by negative affective components, such as severe fear (Lawlor & Kirakowski, 2014) and helplessness (Feldman, 2004). In addition, FPPs consist of behavioral aspects and may be maintained by rewarding elements, such as addictiveness (Lawlor & Kirakowski, 2014), as well as a demandingness of treatment (Yates et al., 2018).

Criminological Model

The criminological model explains feigning behavior in terms of antisocial and non-conforming, oppositional attributes of an individual (Rogers, 1990a; Rogers et al., 1994). As an important distinction, FPP is not considered when the motivation is predominated by undeserved rewards achieved at the expense of others. Examples include (a) misusing hospitals or mental health treatment centers, and (b) inflating medical expenses via unnecessary treatment, such as investigations and interventions, or hospital admission. It is common for the healthcare costs of a single patient with factitious disorder to exceed $200,000 because of a long history of unwarranted treatment or services (Yates & Feldman, 2016).

In keeping with the criminological model, deceptive behavior for FPPs adversely impacts healthcare providers and insurance companies by their depletion of valuable resources (Feldman, 2004). The treatment staff deceived by factitious patients may experience considerable psychological distress (Yates et al., 2018). They may experience feelings of anger and likely feel "cheated" if it is discovered that patients' behaviors are factitious in nature (Yates & Feldman, 2016).

Criminological explanations of FPPs also involve an interpersonal component involving antisocial behavior, such as the facet of pathological lying or pseudologia fantastica (Feldman,

2004; Yates et al., 2018). On this point, Feldman (2004) suggests pathological lying to be a common trait in those with factitious presentations. As evidence of deception, the symptom presentation of patients with FPPs tends to be more pronounced when treatment providers are present. A remarkable discrepancy is noted between behavior and symptoms reported versus observed (Yates et al., 2018). With behaviors viewed as antisocial, patients with factitious presentations may not have empathy or regard for those taking care of them and the negative impact this might have.

Ford (2010) suggested an element of enjoyment or gratification for those who engage in factitious behavior. He hypothesized that some presenting with factitious disorders might be motivated a "duping delight," a term associated with deception and generating worry or a sense of emergency in others. However, Lawlor and Kirakowski (2014) found only 9% of persons with factitious disorders were motivated by the pleasure of misleading others.

In summary, criminological explanations are less salient to factitious presentations than malingering, where antisocial motivations are often central. However, criminological motivations for FPP should not be entirely discounted. FPPs may be emerge from an antisocial background and be maintained by the desire to control and manipulate others (Yates & Feldman, 2016). Interpersonal facets of pathological lying (Feldman, 2004; Yates et al., 2018) and possibly "duping delight" (Ford, 2010) may also be central.

Adaptational Model

The adaptational model suggests that feigning is rooted in motivational desires to succeed in highly adversarial consequences (Rogers, 1990a; 1990b). Persons are understandably motivated to achieve the least detrimental outcome. This explanatory model of deception conceptualizes FPPs from a risk-benefit context. A convincing explanation for malingering

(Rogers et al., 1994), it may also apply to conceptual elements of FPPs.

FPPs may serve both situational and adaptive functions in adversarial contexts. Without any more favorable options, factitious behavior can begin to meet persons' psychological needs, although it is may possibly exacerbate dependency needs in the long term (Feldman, 2004). Within the adaptational model, dependency is emphasized as a "trade-off" in the context of few viable options. Experiencing challenging events in life can cause factitious behavior to manifest, and exaggerating or fabricating symptoms can allow them to feel like they have control (Lawlor & Kirakowski, 2014). In treatment settings, individuals may become dependent on engaging in factitious behavior as a coping mechanism, which may allow them to receive attention and nurturance, thus reinforcing the FPP.

Expanding on the risk-benefit analysis of the adaptational model, strategic denial appears to be an important component of factitious presentations. Obviously, forthright admissions to exaggerating symptoms can carry highly aversive consequences, including anger or disapproval by deceived health care providers. In the long term, such admissions also introduce the possibility of the denial of future treatment for even genuine conditions (Yates & Feldman, 2016). Individuals with FPPs have a tendency to admit themselves to hospitals and have strong reactions of denial and discharge quickly if confronted about the legitimacy of their illness (Parker, 1996). If confronted, the patients may have reactions of denial of feigning and disengagement in treatment (Feldman, 2004). These patients may view admitting the truth as risky, and engage in defensive behavior as an adaptive method to avoid detection and protect one's credibility (Yates & Feldman, 2016). According to the adaptational model, FPP patients weigh the costs and benefits of both seeking unwarranted treatment and reducing the damage if discovered.

The exaggeration or fabrication of FPP symptoms appears to be context dependent, giving support to the strategic denial component. Individuals may present with atypical presentations or unusual patient behavior, and these symptoms may intensify under the supervision of healthcare professionals to give the appearance of extreme need of care (Yates & Feldman, 2016). As noted, FPP symptom presentations suddenly appear more prominent in the presence of treatment providers (Yates & Feldman, 2016). This dissimulation is likely an adaptive mechanism, as factitious patients are trying to succeed in convincing others of the legitimacy of their illness.

The adaptational model in treatment settings addresses perceived needs, not the gradual improvement found with genuine diagnosis (Yates & Feldman, 2016). For example, FPP patients may indicate unlikely fluctuations in the course of their reported disorder or may report extremely serious symptoms only characteristic of the most severe cases (Feldman, 2004). This may be strategic in nature, in effort to appear very ill to avoid discharge. Because of preparation for FPPs, some patients possess an unusually high amount of medical or psychological knowledge (Yates & Feldman, 2016). Despite preparation, Yates et al. (2018) indicated symptom presentations of patients may overly rely on stereotypes of the presumed mental disorder in their efforts to simulate a genuine disorder.

As part of their adaptation, Lawlor and Kirakowski (2014) found that many individuals strongly embrace the sick role of the patient and adopt it as a large part of their self-identity. Thus, it benefits them in providing a stronger sense of self (Lawlor & Kirakowski, 2014). Additionally, some patients with FPPs appear to enjoy the treatment environment. Therefore, the benefits of feigning outweigh the risks because of the ongoing gratification and strong sense of identity obtained.

A sense of mastery that comes from deceptive behavior constitutes an additional salient theme within the adaptational model for factitious presentations (Feldman, Hamilton, & Deemer, 2001). Patients likely achieve a sense of accomplishment because they mastered their FPP (Feldman et al., 2001). If factitious patients are dependent on care received and this behavior is reinforced, these individuals can obtain enjoyment and a self-impression of attainment (Lawlor & Kirakowski, 2014). Attainment may then provide a sense of validation to FPP patients and their inability to cope (Lawlor & Kirakowski, 2014). The joy brought about by accomplishing something may outweigh the potential adversarial consequences of being caught. In contrast to Lawlor and Kirakowski's (2014) conceptualization of FPP as a means of providing a stable identity, a sense of mastery may provide individuals a feeling of control over one's circumstances. This achievement may then become integrated with their conceptualization of themselves. Thus, the reward from a sense of accomplishment may, in turn, provide validation and contribute to a more stable sense of identity in viewing oneself in the patient role.

The underlying motivation of factitious behavior is presumed to be present without external incentives, though most researchers agree that the behavior is both intentional and conscious (e.g., Hamilton et al., 2009; Lawlor & Kirakowski, 2014). The conscious and intentional production of factitious behavior may serve an adaptive role, as there appear to be psychological incentives and general awareness that their illness is not real (Hamilton et al., 2009). Because the goal of engaging in factitious behavior largely appears to be an elicitation of nurturance, attention, and care from others, these motivations can be viewed as adaptive in nature. Lawlor and Kirakowski (2014) found that most individuals have reported reflecting upon their reasoning for engaging in factitious behavior, which further supports the notion that factitious presentations are both conscious and intentional.

Turner (2006) asserts that the motivation for factitious presentations is neither conscious nor intentional, and cites the concept of self-harm as his reasoning for this assertion. He argues that because blatant self-harm is present in many factitious cases, we must consider this crucial aspect (Turner, 2006). However, it is worth noting, such cases of obvious self-harm are typically limited to extreme cases of physical factitious disorder. In such severe cases, desired services appear to outweigh all other considerations involving one's well-being. The psychological incentives, such as attention and care received, might only be achieved through FPPs when other options may not be viable (Hamilton et al., 2009). Though not all scholars agree, it is a general consensus that the motivation for engaging in factitious behavior is both conscious and intentional in nature.

Nurturance Model

The nurturance model is especially important to understanding the underlying motivation of FPPs, because it appears to be unique to factitious presentations. With the three other explanatory models, motivations and behavior may distinguish malingering and FPP from one another, while sharing the same core features. However, the nurturance model focuses specifically on factitious disorders and FPPs.

"Playing the sick role" of a patient is a defining component of the disorder, and is associated with the need for sympathy and compassion (Feldman, 1996). It is termed "playing" because persons are either fabricating or exaggerating symptoms to fit the role of what they believed to mirror truly sick patients. Individuals engaging in factitious behavior appear to have a longing for nurturance, sympathy, and compassion, along with a prominent need for the detachment from stressors and demands of their actual lives (Feldman, 2004). Through the display of care and concerns that treatment providers and caretakers give them, factitious patients

fulfill their need for nurturance from caretakers and treatment providers. Additionally, access to resources in the healthcare system and important privileges and dispensations are also provided (Feldman, 2004). Lawlor and Kirakowski (2014) found the desire for affection was the most commonly cited reason for engaging in factitious behavior. Patients with FPPs appear to thrive off the affection and care of others, feelings of uniqueness, and attention that participating in deceptive behavior brings them (Lawlor & Kirakowski, 2014).

Playing the sick role can develop into a dependency on treatment providers and the nurturance received. Cunnien (1997) concluded that for many patients with factitious disorders, obtaining medical or psychiatric care fulfills substantial needs of dependency. Factitious patients are typically unusually receptive to psychiatric hospitalization, likely due to the dependent nature of these patients (Parker, 1996). A simulation study using advanced doctoral students to feign FPPs found the factitious-dependent group was characterized by (a) difficulty getting needs met in personal relationships, (b) a high motivation for treatment, and (c) lack of social support (Rogers, Jackson, & Kaminski, 2005).

The development of unrealistic and idealized views of mental health professionals may arise from continuing needs for nurturance and dependency. Though not well researched, FPPs are thought to be promoted by an overinvestment in mental healthcare professionals (Rogers, Sewell, & Gillard, 2010). Catalina, Macias, and de Cos (2008) found the desire for intense relationships went beyond the professional staff to other patients and their families. It seems that patients with FPP may be bolstering self-views by strongly invested, if not romanticized, relationships with healthcare professionals. The nurturance model may consequently be reinforced by the desire to be a special patient in the eyes of treatment providers.

Table 1

Conceptual Models of Factitious Psychological Presentations

Component	Author(s)	Key Findings
Pathogenic Model		
Underlying disorder	Yates et al. (2018)	FPP emerges from psychopathology to alleviate severe stressors.
	Yates et al. (2018)	FPP is an amplification of real, preexisting symptoms about which there is a lack of insight.
	Lawlor & Kirakowski (2014)	FPP can occur when genuine disorders feel invalidated.
	Parker (1996)	Traits and disorders (e.g., hypochondriasis and depression) may be present and contribute to FPP.
Helplessness	Feldman (2004)	FPP is maintained by feeling trapped and helpless.
Severe fear	Lawlor & Kirakowski (2014)	FPP is maintained by fears of disclosing, the loss of trust and support, as well as the loss of a coping method via FPP.
Addictive	Lawlor & Kirakowski (2014)	Based on the excessive appetite model (Orford, 2001), FPP becomes emotional rewarding and eventually addictive.
Demanding	Yates et al. (2018)	Those with FPP have inordinate comfort with playing the patient role and are demanding of treatment and care.
Criminological Model		
Antisocial traits	Yates & Feldman (2016)	FPP emerges from an antisocial background involving fraud and manipulativeness.
Manipulative	Yates & Feldman (2016)	FPP is maintained by desire to manipulate and control others.
Pathological lying	Yates et al. (2018); Feldman (2004)	FPP is associated with interpersonal deception, sometimes without any perceived motivation.
Duping delight	Ford (2010)	FPP is maintained by pleasure of deceiving and causing urgent care or emergencies.

(table continues)

Component	Author(s)	Key Findings
Adaptational Model		
Trade-off	Feldman (2004)	Without better options, FPP allows patients to meet psychological needs at the price of dependency.
Coping mechanism	Lawlor & Kirakowski (2014)	Living with stress, FPP provides a method of avoidance and control.
Strategic denial	Lawlor & Kirakowski (2014)	FPP is maintained by different deceptions. When confronted, options include denial and disengagement.
Identity	Lawlor & Kirakowski (2014)	FPP is maintained by providing a more stable identity.
Sense of mastery	Feldman et al. (2001)	Faced with many adversities, FPP provides a sense of mastery and control over one's circumstances.
Nurturance Model		
Unmet needs for caring	Feldman (1996)	FPP emerges from a persistent desire for nurturance, sympathy and compassion.
Patient status	Lawlor & Kirakowski (2014)	FPP is maintained by the desire for assuming sick role with its heightened status and privileges.
Dependency	Feldman (2004)	Consistent with unmet needs, FPP promotes the identification of health providers as the primary, if not sole, role as care-givers.
Idealized relationship	Rogers, Sewell & Gillard (2010)	FPP is promoted by an overinvestment in the mental health professionals, who are often admired if not idealized.

Source: Velsor & Rogers (2019).

Current Study

A dearth of research exists on factitious disorders, particularly with psychological presentations. The limited research available has examined various conceptual components of factitious disorder, but not in a systematic fashion. As a result, factitious disorder does not appear to be well understood and significant issues endure. The diagnostic legitimacy of factitious disorder as a formal DSM diagnosis remains questionable. In practice, clinicians are faced with formidable challenges in distinguishing malingering from factitious disorder. As an alternative to formal diagnosis, FPPs may be more accurately considered a dimensional construct, parallel to a malingering V code. They could then be considered a response style that may vary over time and circumstances.

Building on Rogers (1990a, 1990b) explanatory models of malingering, four explanatory models for FPPs were considered for the current study. Three parallel malingering (pathogenic, criminological, adaptational), but differ in their central features, and an additional model of nurturance was added. Expanding on previous conceptual research on explanatory models of FPPs (Velsor & Rogers, 2019), the current study's purpose was to provide validation for a newly developed measure assessing FPPs, the Inventory of Self and Interpersonal Problems (I-SIP; Rogers & Velsor, 2017). The study examined construct validity of the I-SIP via theoretically related and unrelated conceptual elements of FPPs.

Development and Initial Validation of the I-SIP

The Inventory of Self and Interpersonal Problems (I-SIP; Rogers & Velsor, 2017) was developed in response to the need for an evaluation tool assessing for factitious psychological response styles. The I-SIP is based on a thorough review of factitious literature delineating

conceptual elements of factitious disorder. Moreover, the explanatory models of FPPs detailed in Velsor and Rogers (2019) constitute the primary foundations for the I-SIP.

The I-SIP is comprised of 60 items (22 FPP items, 16 Filler items, 22 Antisocial items). FPP items include motivational elements central to factitious psychological presentations, such as treatment needs or assuming the role of the patient. FPP items are the primary focus of the I-SIP and are divided into several subscales detailed in the following paragraph and Table 2. Filler items cover a variety of topics meant to motivate no particular pattern of responding such as, "Sometimes I don't think I have as much fun as most persons on the weekends." These items are included to reduce the overall face validity of the I-SIP, as tests with higher face validity are more easily feigned (Tan, Slick, Strauss, & Hultsch, 2002). The Antisocial items inquire about persons' general antisocial traits, such as manipulativeness or taking advantage of others. Items assessing for antisocial characteristics are included to assist with differentiation between response styles (i.e., malingering vs. FPPs).

Table 2

Conceptual Elements of I-SIP FPP subscales

FPP Subscale	Primary Conceptual Elements	Example Item
Cost-benefit analysis	Better than other alternatives or the only perceived choice	I don't like being so dependent on my doctors or counselors, but I don't see any better solution for me.
Relationships with healthcare providers	Intensely dependent or invested relationships with doctors or healthcare providers	I sometimes feel terrible that counselors are the only persons in my life that really care for me.
Treatment needs	Crisis based, helplessness, intense feelings of fear, and potential fears of abandonment by professionals	When counselors say I am improving, I am sometimes frightened they will abandon me and try to convince them not to.
Patient role	Patient role is part of one's identity	Even when treatment helps me, I sometimes feel trapped in the role of being a patient.

The FPP scale contains 4 subscales, each focusing on a different central feature of FPPs (see Table 2). Themes from the pathogenic, adaptational, and nurturance model are included in the FPP scale. The criminological model was omitted from the creation of the I-SIP, because antisocial motivations appear to be more salient for malingering than FPPs.

An examination of item content was warranted for the initial validation of the I-SIP. A prototypical analysis was conducted to examine agreement on FPP items among four experts on factitious disorder. Originally, there were 26 FPP items; 4 were removed due to low agreement among experts. On the remaining items, there was a 98.9% concordance rate in regard to the items being representative of FPPs. The prototypical analysis extended to the FPP subscales, in which experts rated how important an item was to a particular subscale. Experts rated the item on a scale from 1 - 7 (1 = *not important to this FPP category*, 2 = *slightly important to this FPP category*, 3 = *below average importance*, 4 = *average importance*, 5 = *above average importance*, 6 = *important to this FPP category*, 7 = *very important to this FPP category*).

Classification of each subscale was based on (1) ratings of $\geq$ 5 (above average importance to FPP category) and were included on one scale only and (2) $\geq$ 5 (above average importance to FPP category) and $\geq$ .5 points higher than other scales. In general, agreement among experts was high for the inclusion of items on each subscale. The patient role subscale possessed the highest average prototypical ratings (M = 6.89), indicating a high level of agreement among experts. The cost-benefit analysis subscale comprised the lowest prototypical ratings (M = 5.67), but all ratings were still rated above average importance or higher. In fact, experts were in agreement that all items within each subscale were at least of above average importance to the corresponding FPP subscale.

Research Questions and Hypotheses

Research Question 1

Do the I-SIP FPP and ASC scales constitute homogenous constructs?

The first research question investigated whether the I-SIP FPP and Antisocial (ASC) scales constituted homogenous constructs with high alphas and inter-item correlations in the expected range (.15 to .50).

> Hypothesis 1: The FPP and ASC scales will have high alphas and acceptable inter-item correlations.

Research Question 2

Do the I-SIP FPP and ASC scales demonstrate convergent validity with established measures of therapeutic alliance, interpersonal orientation, and antisocial characteristics?

Consistent with the Nurturance explanatory model, participants with factitious presentations were expected to be over-involved with the treatment process and demonstrate a higher need for nurturance. This is exemplified in Hypotheses 2 and 3 investigating the need for therapeutic alliance on the Working Alliance Inventory (WAI) and attentional and emotional needs on the Interpersonal Orientation Scale (IOS). Convergent validity was explored with the FPP scale of the I-SIP. With respect to the criminological model, malingering simulators were expected to demonstrate a higher level of antisocial traits than factitious simulators. This was explored in Hypothesis 4 examining antisocial characteristics on the Levenson Self-report Psychopathy Scale (LSRP) and convergent validity with the ASC scale on the I-SIP.

> Hypothesis 2: The FACT simulation condition will have higher correlations for the FPP scale with the WAI Bond subscale than the MAL simulation condition and Honest conditions.
>
> Hypothesis 3: The FACT simulation condition will have higher correlations for the FPP scale with the IOS Attentional and Emotional subscales than the MAL simulation condition and Honest conditions.
>
> Hypothesis 4: The MAL simulation condition will have higher correlations on ASC scale

and the LSRP Primary Psychopathy and Secondary Psychopathy subscales than the FACT simulation and Honest conditions.

Research Question 3

Do the I-SIP FPP and ASC scales demonstrate discriminant validity with established measures of therapeutic alliance, interpersonal orientation antisocial characteristics?

The third research question investigated opposite hypotheses of Research Question 2: whether established measures provide discriminant validity for characteristics of FPP and antisocial traits as measured on the I-SIP. This is exemplified in Hypotheses 5 and 6: Participants who are malingering were expected to evidence lower scores on the Working Alliance Inventory (WAI) and Interpersonal Orientation Scale (IOS) than factitious participants. Hypothesis 7 explored discriminant validity of antisocial characteristics measured on the Levenson Self-report Psychopathy Scale (LSRP) with the ASC scale on the I-SIP.

Hypothesis 5: The MAL simulation condition will exhibit lower correlations on the WAI Bond subscale with the FPP scale than the FACT simulation condition and Honest conditions.

Hypothesis 6: The MAL simulation condition will have lower correlations on the IOS Attentional and Emotional subscales than the FACT simulation condition and Honest conditions.

Hypothesis 7: The FACT simulation condition will have lower correlations on the LSRP Primary Psychopathy and Secondary Psychopathy subscales with the FPP scale than the MAL simulation condition.

Research Question 4

Does simulation condition (MAL vs. FACT) produce predicted differences on the I-SIP?

The fourth research question addressed the effectiveness of the I-SIP in classification of response styles. Hypothesis 8 investigated whether rule-in and rule-out cut scores could be established for the FACT simulation group on a subset of items from the FPP scale using the following steps:

1. Identify FPP items on which the FACT simulation group scored significantly higher than the other three groups.

2. Establish a rule-in FPP cut score so that the PPP $\geq$ .80 for identifying the FACT simulation group.

3. Establish a rule-out FPP cut score so that the NPP $\geq$ .80 for excluding the FACT simulation group.

Hypothesis 9 investigated whether rule-out and rule-in cut scores could be established for the MAL simulation group on a subset of items from the ASC scale using the following steps:

1. Identify ASC items on which the MAL simulation group scored significantly higher than the other three groups.

2. Establish a rule-in MAL cut score so that the PPP $\geq$ .80 for identifying the MAL simulation group.

3. Establish a rule-out MAL cut score so that the NPP $\geq$ .80 for excluding the MAL simulation group.

Hypothesis 8: The FACT simulation condition will have higher scores on the FPP scale and lower scores on the ASC scale than the MAL simulation condition and Honest conditions.

Hypothesis 9: The MAL simulation condition will have higher scores on the ASC scale and lower scores on the FPP scale than the FACT simulation condition and Honest conditions.

Research Question 5

Will the SIMS cut scores be effective at differentiating the MAL simulation and FACT simulation conditions?

It was predicted that SIMS cut scores would not distinguish between the MAL simulation group and FACT simulation group using the original SIMS Total Scores or the revised scales based detection strategies (e.g., Rare Symptoms [RS] and Symptom Combinations [SC] scales; Rogers, Robinson, & Gillard, 2014). This was predicted because the SIMS was designed to detect malingering, but not to distinguish between response styles (Rogers et al., 2005).

Hypothesis 10: SIMS cut scores will not distinguish between the MAL simulation condition and FACT simulation condition (total scale and Rogers revised scales

(symptom combination and rare symptoms; Rogers et al., 2014).

Supplementary Research Question 1

Will simulators high in antisocial traits as measured by the LSRP will have differing sensitivity and predictive power than those low in antisocial traits on the SIMS scales?

The first supplementary research question investigated the ability of antisocial traits as measured on the LSRP to predict classification of feigning on the SIMS. It was predicted that persons high in antisocial traits would have lower sensitivity and positive predictive power (PPP) than those low in antisocial traits on the SIMS scales. While some research has shown antisocial traits are not predictive of malingering (e.g., Impelen, Merckelbach, Jelicic, & à Campo, 2018), the findings are mixed.

Supplementary Research Question 2

Will gender differences be found on the I-SIP under the genuine condition?

The second supplementary research question was examined to determine whether males and females score differently on the I-SIP. This supplementary question is based on females' stereotypically higher need for nurturance compared with males (Gnaulati & Heine, 2001; Williams, Giles, Edwards, Best, & Daws, 1977) and males higher antisocial characteristics (Falkenbach, Reinhard, & Larson, 2017; Rogstad & Rogers, 2008). With its inclusion of nurturance items, the FPP scale was hypothesized to be significantly higher for females than males. Males were expected to score higher on the ASC scale.

CHAPTER 2

METHOD

Design

The current study utilized a within-subjects experimental design to examine the construct validity of the I-SIP. A within-subjects design was chosen because it maximizes statistical power of the simulation design by eliminating group differences present in between-subjects designs (see Viswesvaran & Ones, 1999). In Phase 1, participants completed all measures in the honest condition, with the exception of the SIMS. Then, in Phase 2, participants were quasi-randomly assigned to a feigning simulation condition (i.e., MAL or FACT). They read a simulation scenario before completing the measures again under the assigned faking condition, allowing for direct comparisons between different feigning response styles on the I-SIP and selected measures to examine construct validity.

The vast majority of research conducted on responses styles relies on simulation designs (Rogers, 2018). It is important to have a clinical comparison group comprised of persons with genuine mental disorders with no evidence of feigning (Rogers & Cruise, 1998). Even though the bulk of feigning research uses nonclinical participants assigned to a control group (i.e., standard instructions) and compares with clinical samples of convenience (Rogers, 2018), the current study circumvented this issue by the use of participants with genuine mental disorders from an inpatient treatment center.

Instructions for the simulation condition must be clear and comprehensive and must challenge participants as a method for motivation (Merckelbach, Smeets, & Jelicic, 2009). There must also be appropriate incentives for successful simulation (Rogers, 2018). The current study provided monetary incentive for participants for completion of the study. In addition, a

manipulation check inquired about understanding of the simulation scenario and to ensure directions were followed adequately. Manipulation checks are imperative in simulation design research to establish comprehension of the study's purpose and assess for appropriate effort (Crighton, Marek, Dragon, & Ben-Porath, 2017). The current study incorporated all features central to simulation designs in the evaluation of response styles.

Participants

Participants consisted of inpatients recruited from a private psychiatric hospital, University Behavioral Health (UBH) in Denton, TX. All participants were 18 years of age or older. Based on previous research conducted at this facility, the sample was expected to include approximately equal numbers of males and females and a variety of racial/ethnic composition.

Exclusion criteria were minimal. Participants were not excluded because of age, unless they were under 18. If participants were experiencing severe substance withdrawal or psychiatric symptoms that may hinder their ability to participate or make them especially vulnerable, they were to be excluded from the study. An additional exclusion criterion included a reading level lower than 7th grade, as measured by the WRAT 4 reading subtest. This exclusion ensured adequate reading comprehension on surveys the participants completed during the study.

Measures

Demographic Information

Basic demographic information was gathered via self-report from participants. This brief questionnaire included self-identified gender, age, self-identified ethnicity, primary language, and marital status (see Appendix A). In addition, information on education level and current occupational status was also collected. Participants were also asked to recall their number of previous psychiatric hospitalizations.

Symptom Measurement: DSM-5 Cross Cutting Measure

The DSM-5 Self Rated Level 1 Cross Cutting Symptom Measure - Adult (APA, 2013) is a brief transdiagnostic measure developed to monitor patient treatment progress. It has been used in research as an evaluation as tools to enhance clinical decision-making. Items have been shown to be rated reliably by adult patients, with ICCs in the good to excellent range (0.60-1; Narrow et al., 2013). The DSM-5 Cross Cutting measure has demonstrated good internal consistency and clinical utility (Clarke, & Kuhl, 2014).

Reading Level: WRAT 4

The Wide Range Achievement Test, 4th Edition (WRAT 4), Word Reading Subtest (Wilkinson & Roberston, 2006) is a norm-referenced test that measures basic academic skills of word reading that corresponds to a grade equivalent reading level. It is commonly used to assess reading ability for psychological testing in forensic settings (Himsl, Burchett, Tarescavage, & Glassmire, 2017). Overall, the WRAT 4 has high levels of internal consistency, with reports ranging from .92 to .98. The word reading subtest has moderate internal consistency with reliability coefficients reported ranging from .87 to .93 (Wilkinson & Roberston, 2006).

Construct Validity Measures

Interpersonal Orientation Scale (IOS)

The Interpersonal Orientation Scale (Hill, 1987) is a brief measure that focuses on 4 dimensions assumed to underlie affiliation motivation. Overall, the IOS has good internal consistency, with alphas ranging from .70 to .86. The Attentional and Emotional support subscales, which will be used in the current study, have evidenced internal consistency alphas of .80 and .90, respectively. Test-retest reliability coefficients are also excellent at .90 for the Attentional subscale, and .81 for the Emotional support subscale (Hill, 1987).

Inventory of Self and Interpersonal Problems (I-SIP)

The I-SIP (Rogers & Velsor, 2017) is a brief self-report measure for assessing responses styles associated with factitious psychological presentations. It contains 4 rationally developed subscales measuring components of FPPs: cost-benefit analysis, intensely dependent or invested relationship with doctors and health professionals, treatment needs, and patient role as part of one's identity. Reliability statistics are not available for the I-SIP, because it is a newly developed measure. A primary goal of this dissertation is to provide construct validity for the I-SIP.

Levenson Self-Report Psychopathy Scale

The Levenson Self-Report Psychopathy Scale (Levenson, Kiehl, & Fitzpatrick, 1995) is a brief measure intended to assess both primary and secondary psychopathy traits. It was first developed for use in research and has been validated on both offender and non-offender samples. The internal consistency coefficients of the Primary and Secondary psychopathy subscales are .82 and .63, respectively (Levenson et al., 1995).

Working Alliance Inventory-Short Form Revised (WAI-SR).

The WAI-SR (Horvath, 1992; Revision Tracey & Kokotowitc, 1989) is a brief measure that assesses the alliance between a patient and treatment staff. It assesses agreement on tasks and goals of therapy and the development of an effective bond. Cronbach's alphas for the subscales of the WAI-SR for both inpatient and outpatient samples are good ($\alpha > 0.80$), and excellent for the WAI-SR total score ($\alpha > 0.90$).

Malingering Measure: Structured Inventory of Malingered Symptomatology (SIMS)

The SIMS (Widows & Smith, 2004) is a brief true-false self-report measure designed to screen for malingered psychopathology and cognitive symptoms. It includes five non-overlapping scales: Amnestic Disorders (AM), Psychosis (P), Neurologic Impairment (NI), Affective Disorders (AF), and Low Intelligence (LI). The SIMS total score is used as a general feigning screen and evidences high internal consistency (α=.88) with a suggested cut score of >14 for identifying potential feigners. It has also been shown to have good discriminant validity (Widows & Smith, 2004). Rogers et al. (2014) developed two new feigning scales for the SIMS based on well-established detection strategies: Rare Symptoms (RS) and Symptom Combinations (SC). SC refer to pairs of symptoms that infrequently co-occur in genuine patient populations, but are endorsed at higher rates by those feigning. RS are those that are very uncommon (i.e., < 10%), even in genuine clinical samples (Rogers et al., 2014). The RS scale was shown to be moderately effective at differentiating genuine and feigning groups and the SC scale has good specificity (.67) and excellent sensitivity (.98; Rogers et al., 2014). A meta-analysis conducted by van Impelen, Merckelbach, Jelicic, & Merten (2014) found the SIMS to be effective at distinguishing between feigners and genuine responders and has been shown to produce elevated scores in populations known to have a heightened prevalence of feigning.

Operationalization of Groups

Standard Instructions

The standard instructions for the current study were communicated verbally. Participants were told they would be filling out multiple self-report surveys. They were asked to be forthright about their current level of functioning and to put forth their best effort and to answer honestly. Participants were told their job is to provide an accurate picture of their current psychological

issues and experienced symptoms.

General Feigning Instructions

After completing the surveys in the honest condition (standard instructions) participants were randomly assigned to one of two feigning conditions (malingering vs. factitious). Prior to receiving specific instructions, all participants were asked to role-play an outpatient at a private clinic receiving weekly individual therapy from his or her psychologist for the past six months. Participants were also asked to assume that they are financially comfortable and clinically stable with no mental health crises.

Participants were challenged to see if they can "beat the tests" while avoiding detection. This was in effort to provide motivation and incentive to participants to try to successfully simulate. A need to invest participants with a sense of personal involvement is crucial for implication of successful simulation design research (Rogers, 2018). Participants were provided monetary compensation of $10 for completion in the study to provide additional incentive. It is essential that simulation instructions are comprehensible, specific, and provide context for participants. Simulation design research should also include detection-based coaching, in which participants are informed about potential detection-based strategies (Rogers, 2018). Therefore, the current study cautioned participants about feigning indicators and encourage them to respond in a believable fashion. The study also included a manipulation check at the end to ensure accurate recall of the simulation instructions along with a self-appraisal of effort.

Specific Factitious Psychological Presentation (FACT) Instructions

Participants in this condition were asked to role-play outpatients adulating their psychologists and wanting more services as needy patients, immersed in the sick role. They were asked to role-play that they often feel trapped in this role, and sometimes overplay their

symptoms to meet their psychological needs, for fear of abandonment, and loss of support. The FACT simulation instructions were based on conceptual elements delineated in Velsor & Rogers (2019) article on explanatory models of FPPs. The Flesh-Kincaid reading level of the FACT simulation instructions is 7.4. Participants were given the following description to read:

- *Unmet needs*: You admire your current psychologist, Dr. Jones, and her therapeutic abilities very much. However, you have become frustrated that the clinic only allows 30-minute sessions every other week. She is the only psychologist that truly understands you. You feel accepted and cared for when you are with her and nothing fulfills you like seeing Dr. Jones and being involved at the mental health clinic.

- *Intensive treatment*: You recently learned that Dr. Jones provides intensive outpatient treatment with 2-3 sessions every week. Though, this is only for clients in need of more care. If only you could be seen daily. You decide it is up to you convince her of your urgent needs to be a part of this special program.

- *Your goal:* You try to help Dr. Jones understand:

    1. Your urgent psychological needs and that she is the only person to truly help you.
    2. That she is much more than a doctor to you.
    3. That you would do anything, even exaggerate your symptoms, to get the treatment you need. This is the only way to show Dr. Jones how much you really need her help. But, you need to make it believable or the psychologist will know you are exaggerating.

Specific Malingering (MAL) Instructions

Participants in this condition were asked to assume the role of outpatients in danger of losing their positions as well-paid professionals in a company that is downsizing. Participants were presented with an alternative to job termination, namely the feigning of a disability claim

that would bring generous compensation. The Flesh-Kincaid reading level for the malingering simulation instructions is 7.1. Participants were given the following description:

- *Your job is in jeopardy*: You know that more jobs will be cut. As a highly paid professional, your career is on the chopping block. You fear your job will be cut next. You want a way out. If you could appear disabled, you could secure your financial future, and avoid being fired. You would also no longer have to work. You deserve some rewards at their expense after all your work. Plus, you have your private disability insurance that would pay you generously.
- *Your solution*: Naturally, you are stressed and upset by your current circumstances, but are not really disabled. If you are going to succeed, you have to prove that you are unable to function at your profession (i.e., 100% disabled).
- *Your goal*: You need to look severely disabled and unable to function at work. But, you need to make it believable or the psychologist will know you are cheating. Overplay your psychological symptoms so you are able to prove you are unfit to work, but are still able to get your disability claim.

Procedures

Recruitment

Participants were recruited via a verbal announcement by the researcher during their free time period in the common room at the psychiatric hospital. No written recruitment material was used for the current study. Participants completed the study on a voluntary basis.

An announcement was made briefly discussing the study's purpose, that it would have no influence on their treatment at UBH, and willing participants would then go with the researcher in a private group therapy room to complete the study. The study was run in groups of 2-4

participants. After completion of the study, participants were then compensated $10 for their participation.

Informed Consent

Informed consent processes are a key element in ethical clinical research and aims to assure participant understanding of the study (Palmer, Savla, Roesch, & Jeste, 2013). In the current study, participants first read the informed consent form and were given an opportunity to ask the researcher any questions. Consent was also discussed verbally and participants were asked to explain it in their own words to ensure comprehension of study purposes and procedures. Study procedures and consent processes were explained in the small groups the research is being conducted in (i.e., 2-4 participants) in a private group therapy room. After participants demonstrated understanding, they provided their consent by signing the informed consent form. A copy of the informed consent document was provided to participants upon request.

Anonymity and Confidentiality

Confidentiality in research settings involves the management of private information and protects the autonomy of individual's right to maintain secrecy and privacy of this information (Giordano, O'Reilly, Taylor, & Dogra, 2007). In the current study, the participants' names only appeared on the informed consent forms. The consent forms were kept completely separate from the rest of the data that is coded only with a participant number. This is in effort to ensure protection of participants' confidentiality as both a research participant as a patient at UBH.

To further protect confidentiality, only basic demographic information was collected (e.g., age, ethnicity, gender). No information was collected that is believed to be identifiable and able to be linked to the participants. The hard copies of the data were kept in a locked research

lab office. Informed consent forms with participants' names were stored and kept separate from the paper data copies in a locked research lab office.

Phase I

After providing consent, participants were assigned participant IDs, which were used to link data without the collection of identifying information. Phase I, in which participants answered measures honestly under standard instructions was conducted first. This was to reduce confusion once participants are given a simulation scenario (MAL or FACT) and were instructed to assume the role of the person in the scenario.

In the separate group therapy room from where consent was obtained, participants were administered the WRAT 4 individually to assess reading level. Individual administrations of the WRAT 4 safeguard against other participants potentially overhearing the content and assure participant responses are their own. The purpose was to ensure adequate comprehension of the subsequent administered measures. If participants had lower than a 7^{th} grade reading level, their data was to be excluded from the study.

Following the administration of the WRAT 4, participants completed the DSM Cross Cutting Measure to assess symptomology. The next measures administered included the construct validity component of the study. Participants completed the subsequent measures under standard instructions to serve as a comparative basis for feigning conditions. The only measure participants did not complete under standard instruction is the SIMS. This is because the SIMS is being used to assess for differences in response styles between the malingering and factitious simulation conditions, and would likely not add substantial incremental validity to the study if administered under standard instructions (i.e., participants answering honestly). The WAI-SR was administered to assess therapeutic bond, and the IOS to measure emotional support and

attentional needs. Next, participants were administered the LSRP scale to assess antisocial traits. Finally, participants completed the I-SIP to assess factitious psychological response styles.

Phase II

Following phase I, participants completed measures under one of two previously quasi-randomly assigned feigning conditions (MAL vs. FACT). They were asked to read a scenario and to assume the role of the person in the scenario. Participants were asked to summarize the goal of the scenario in their own words to ensure understanding. In the feigning condition, participants completed the aforementioned surveys again (WAI-SR, IOS, LSRP, and I-SIP). Participants also completed the SIMS to assess for malingered responding.

Manipulation Check After Phase II

Participants were given a manipulation check (see Appendix B) to ensure adequate effort and understanding of the study. They were asked to summarize their instructions throughout both Phase I and II and asked to list specific components of the scenario in the feigning condition to the researcher. This was to establish participants' understanding that they were to first answer the surveys honestly, and then assume the role of the person in the scenario when answering them a second time.

Participants were also asked to rate their effort during the study on a scale of 1-10 (1 = didn't try at all, 10 = tried my hardest). Participants who self-rated their effort as less than 7 were to be excluded from data analysis. Participants who failed to understand the purposes of the study or list specific components of the scenario were also to be excluded from data analysis. An additional exclusion from data analysis was a failure to follow directions.

Data Analyses

Research Question 1

Alpha coefficients and inter-item correlations were examined to assess for scale homogeneity.

Research Questions 2 and 3

The statistical analyses are summarized for Hypotheses 2 through 7:

Bivariate Pearson correlations were conducted to examine the correlations between the established measures and the theoretically similar and dissimilar domains on the I-SIP. Rogers and colleagues rigorous correlation standards were utilized: .35 for moderate, .53 for large, and .60 for very large (Rogers, 2008; Rogers & Bender, 2018; Rogers, Williams, Winningham, & Sharf, 2018).

Research Question 4

Statistical analyses for are summarized for Hypotheses 8 and 9:

Utility estimates were calculated in order to determine the effectiveness of the I-SIP in ruling-in and ruling-out (a) the FACT simulation group (8) and (b) MAL simulation group (9). Utility estimates include sensitivity, specificity, positive predictive power (PPP), negative predictive power (NPP) and overall correct classification (OCC).

Research Question 5

Utility estimates were calculated to examine the SIM's effectiveness in discriminating between response styles. Utility estimates include sensitivity, specificity, positive predictive power (PPP), negative predictive power (NPP) and overall correct classification (OCC).

Supplementary Research Question 1

Utility estimates were conducted to investigate the impact of antisocial traits on SIMS feigning classification. Utility estimates include sensitivity, specificity, positive predictive power (PPP), negative predictive power (NPP) and overall correct classification (OCC).

Supplementary Research Question 2

An ANOVA was conducted to examine differences in mean response patterns between males and females on the I-SIP.

CHAPTER 3

RESULTS

Sample Refinement

The sample was comprised of 80 adult inpatients from University Behavioral Health (UBH), a private psychiatric hospital in North Texas. No participants withdrew from the current study.

As detailed in the Method chapter, several manipulation checks were administered upon completion of the study to ensure participants included in subsequent analyses understood directions and were invested in the study. On average, participants recalled 92.0% of simulation details, indicating good retention of the scenario and its instructions. Additionally, all participants indicated they followed instructions in Phase 2 (i.e., simulation condition). In rating their efforts on a scale of 1 to 10, the average reported level was very high at 9.26 (*SD* = 0.81). All participants rated their effort above 7, which was the threshold for being included in the final sample. Besides the 10-point rating, they responded to a question about their perceived success at convincing the psychologist that they were sick and needed help. Overall, 70% answered “yes,” while 30% were uncertain; as a result, no participants were removed because of this final manipulation check. In summary, all participants successfully completed the three manipulation checks and were included in the final sample.

Reading level was collected via the WRAT 4 Word Reading subtest to ensure a sufficient understanding of study instructions and adequate comprehension of the surveys. The average reading level of the sample was 12.02 (*SD* = 1.13), which clearly surpasses the simulation scenarios with their Flesh-Kincaid grade levels of 7.1 (MAL) and 7.4 (FACT). With all reading levels measuring above grade 8.0, no participants were excluded on this basis.

Description of the Sample

Demographic variables for the overall sample are presented in Table 3 as well as by assigned simulation condition (MAL and FACT). Regarding self-identified gender, the overall sample contained slightly more females (n = 43 or 53.8%) than males. Overall, participants averaged 31.25 years old (SD = 10.92) and ranged from 18 to 65 years. A large portion of the overall sample self-identified as European American (n = 39 or 48.8%). The rest identified as African American (23.8%), Hispanic/Latino (17.5%), multiracial (8.8%), and other (1.3%). For marital status, half of the participants reported being single, while 26.3% were married, and 23.8% were divorced.

Table 3

Differences in MAL and FACT Groups on Demographic and Background Variables

Demographics/Background	Total Sample (N = 80)		FACT (n = 40)		MAL (n = 40)		χ^2	p
	N	Col %	n	Row %	n	Row %		
Self-Identified Gender							1.26	.26
Male	37	46.3	21	56.8	16	43.2		
Female	43	53.8	19	44.2	24	55.8		
Self-Identified Ethnicity[a]							2.79	.59
African American	19	23.8	11	57.9	8	42.1		
European American	39	48.8	19	48.7	20	51.3		
Hispanic American	14	17.5	7	50.0	7	50.0		
Multiracial	7	8.8	2	28.6	5	71.4		
Education Level							1.66	.89
Some High School	13	16.3	6	46.2	7	53.8		
HS Diploma/GED	22	27.5	11	50.0	11	50.0		
Some College/Associates	26	32.5	14	53.8	12	46.2		
Bachelor's Degree	16	20.0	7	43.8	9	56.2		
Graduate Degree	3	3.8	2	66.7	1	33.3		

(table continues)

Demographics/Background	Total Sample (N = 80)		FACT (n = 40)		MAL (n = 40)		χ^2	p
	N	Col %	n	Row %	n	Row %		
Marital Status							1.76	.41
Single	40	50	21	52.5	19	47.5		
Married	21	26.3	8	38.1	13	61.9		
Divorced	19	23.8	11	57.9	8	42.1		
Employment Status							1.85	.40
Employed	51	63.7	25	49.0	26	51.0		
Unemployed	23	28.7	11	47.8	12	52.2		
Disabled	5	6.3	4	80.0	1	20.0		

Note. FACT = Factitious Disorder; MAL = Malingering, [a] One participant listed "other" for self-identified ethnicity.

The sample varied considerably in educational backgrounds and current employment status. Educationally, comparatively few 16.3% (n = 13) reported less than a high school education. The remaining disclosed having a high school diploma or GED (22 or 27.5%), some college, including an associate's degree (26 or 32.5%), while the rest reported a bachelor's degree or higher (19 or 23.8%). Regarding current employment status, the majority of the sample (51 or 63.7%) were gainfully employed, with smaller numbers being unemployed (23 or 28.7%) or on disability (5 or 6.3%).

Participants demonstrated significant variability in regard to previous psychiatric hospitalizations, ranging from 0 to 31. In fact, 28.7% of participants reported the current psychiatric hospitalization to be their first admission. For the overall sample the average number was 3.48 previous hospitalizations (SD = 4.50). High frequency hospitalizations (i.e., > 10), occurred infrequently (7.5%) in the total sample.

Predictably, the descriptive data for the two simulation groups were very similar because of the quasi-random method for group assignment. More specifically, no significant differences were observed between simulation groups with regard to gender, ethnicity, marital status,

education level, or employment status. A slight and definitely non-significant trend occurred for gender: more women (55.0%) than men (43.2%) being assigned to the MAL group. Similarly, as presented in Table 4, no significant differences occurred between simulation groups in regard to age or number of previous psychiatric hospitalizations. However, the FACT group had a slightly higher number of average hospitalizations than the MAL group.

Table 4

Differences between MAL and FACT Group for Age and Previous Psychiatric Hospitalizations

Demographics/ Background	Total Sample (N = 80)		FACT (n = 40)		MAL (n = 40)		*F*	*p*	*d*
	M	*SD*	*M*	*SD*	*M*	*SD*			
Age	31.59	10.43	30.70	10.22	32.48	10.71	.58	.45	0.17
Prior Psychiatric Hospitalizations	3.48	4.50	3.60	4.21	3.35	4.83	.81	.81	0.06

Note. FACT = Factitious Disorder; MAL = Malingering

Research Question and Hypotheses

Research Question 1

RQ1 asked whether the I-SIP FPP and ASC scales constitute homogenous constructs. To investigate scale homogeneity, alphas and inter-item correlations were examined. Table 5 presents results for the FPP and ASC of the I-SIP for the honest condition.

Table 5

Scale Homogeneity for FPP, ASC, and Filler Scales

Scale (# of items)	α	M inter-item *r*
FPP (22)	.86	.24
ASC (22)	.95	.50
Filler (16)	.76	.16

Note. FPP = Factitious Psychological Presentations; ASC = Antisocial

Overall, analyses confirmed the FPP and ASC scales constitute homogeneous constructs with excellent alpha coefficients (.86 and .95 respectively), as unweighted averages substantially exceeded .80 (Nunnally, 1967). The FPP evidenced good scale homogeneity (α = .86) and had average inter-item correlations (*r* = .24) in the optimal range between .15 and .50 (Clark & Watson, 1995). Similarly, the ASC of the I-SIP demonstrated excellent alpha coefficients (α = .95) but its average inter-item correlations were at the high end of this acceptable range (*r* = .50). Unexpectedly, the Filler scale evidenced a moderate alpha (α = .76). Perhaps the items were not functioning as they were originally intended (i.e., without any particular pattern of responding). Instead, participants averaged 70.1% affirmative responses to Filler items. The Discussion examines potential reasons for the unexpectedly high reliability of the Filler scale.

The scale homogeneity of the FPP subscales varied considerably, with alpha coefficients ranging from .45 to .68 (see Table 6). When examining inter-item correlations across subscales, all inter-item correlations averaged in the acceptable range for FPP subscales (*r* = .16 - .44).

Table 6

Scale Homogeneity for FPP Subscales

Subscale (# of items)	α	M inter-item *r*
Cost-Benefit Analysis (4)	.62	.32
Relationships with Providers (7)	.66	.21
Treatment Needs (8)	.45	.16
Patient Role (3)	.68	.44

The lower than expected reliability of the FPP subscales brings up an important consideration: Should the FPP subscales be treated at subscales or just remain an overarching construct? While the overall FPP demonstrated good scale homogeneity, the homogeneity of the subscales was disappointing, ranging from unacceptable to marginal. The low number of items

on two subscales might partly explain the lack of strong alpha coefficients. To the contrary, the subscale with the highest number of items, Treatment Needs, produced the lowest scale homogeneity ($\alpha = .45$).

The Treatment Needs subscale was dropped due its unacceptable alpha that resulted in more than 50% non-systematic error (Streiner, 2003). The remaining three FPP subscales had marginal alphas. Their output was examined for possible improvements in subscale homogeneity if particular items were removed. However, coefficients only increased negligible amounts (one or two hundredths of a point). For example, the alpha for the Relationship with Providers subscale only increased from .66 to .68 with two items removed. As a result, no items were removed from the remaining subscales.

Research Questions 2 and 3

Research Question 2 examined whether established measures that correspond with conceptual elements of the I-SIP converge with expected FPP and ASC scales. Research Question 3 investigated discriminant validity of selected measured and expected scales (FPP and ASC). Variables used for research questions involving the construct validity of the I-SIP (i.e., Hypotheses 2 through 7) are summarized in Table 7. Hypotheses 2 through 4 examine convergent validity, while Hypotheses 5 through 7 predicted expectedly lower correlations aligned with discriminant validity.

Intercorrelations for the overall scales of construct validity measures under honest and simulated conditions are presented in Tables 8 and 9, respectively. Results are presented for the FACT group above the diagonal and the MAL group below the diagonal in both tables.

Table 7

Description of Construct Validity Measures Used in Analysis of Research Questions

Subscale (# of items)	Description
	I-SIP
ASC (22)	General antisocial characteristics and deceptiveness
FPP (22)	Factitious psychological responding
Cost-Benefit Analysis (4)	Better than other alternatives or the only perceived choice
Relationships with Providers (7)	Intensely dependent or invested relationships with doctors or healthcare providers
Patient Role (3)	Patient role is part of one's identity
Filler (16)	Items that would have no particular pattern of responding
	IOS
Emotional Support (6)	Need for empathy, compassion, and concern from others
Attention (6)	Need for others to take notice or view one as important or interesting
Positive Stimulation (9)	Satisfaction from interpersonal interactions and desire to be around others for positive stimulation
Social Comparison (5)	Tendency to compare self to others
	WAI
Bond (3)	Bond and connection to treatment providers
Task (4)	Positive approach to treatment and specific treatment tasks
Goal (5)	Working on mutually agreed upon goals in treatment
	LSRP
Primary Psychopathy (16)	Callousness, shallow affect, manipulation, superficial charm
Secondary Psychopathy (10)	Impulsivity and lack of long-term goals

Table 8

*Construct Validity under **Honest** Conditions: FACT Group (above the Diagonal) and MAL Group (below the Diagonal)*

	I-SIP FPP Scale	I-SIP ASC Scale	IOS Total	LSRP Total	WAI Total
I-SIP FPP Scale		.23	**.50*** **	.40*	**.19**
I-SIP ASC Scale	-.06		.05	**.77*** **	-.24
IOS Total	**.39***	-.30		.35*	.22
LSRP Total	.03	**.89*** **	-.13		-.16
WAI Total	**.08**	-.48**	.52***	-.45**	

Note. FACT = Factitious Disorder; MAL = Malingering; I-SIP = Inventory of Self and Interpersonal Problems; FPP

= Factitious Psychological Presentation; ASC = Antisocial; IOS = I Interpersonal Orientation Scale; LSRP = Levenson Self-report Psychopathy Scale; WAI = Working Alliance Inventory; Bivariate Pearson Correlations were conducted to examine the level of convergence. Convergent validity correlations are bolded. Discriminant validity correlations are underlined. For significance, * $p < .05$; ** $p < .01$; *** $p < .001$

Table 9

*Construct Validity under **Simulated** Conditions: FACT Group (above the Diagonal) and MAL Group (below the Diagonal)*

	I-SIP FPP Scale	I-SIP ASC Scale	IOS Total	LSRP Total	WAI Total
I-SIP FPP Scale		.19	**-.12**	.07	**.28**
I-SIP ASC Scale	.59***		-.43**	**.71*** **	-.35*
IOS Total	**.08**	-.13		-.32*	.44**
LSRP Total	.44**	**.87*** **	-.20		-.63***
WAI Total	**-.17**	-.41**	.48**	-.48**	

Note. FACT = Factitious Disorder; MAL = Malingering; I-SIP = Inventory of Self and Interpersonal Problems; FPP = Factitious Psychological Presentation; ASC = Antisocial; IOS = Interpersonal Orientation Scale; LSRP = Levenson Self-report Psychopathy Scale; WAI = Working Alliance Inventory; Bivariate Pearson Correlations were conducted to examine the level of convergence; Convergent validity correlations are bolded. Discriminant validity correlations are underlined. For significance, * $p < .05$; ** $p < .01$; *** $p < .001$

Convergent Validity of the I-SIP

The convergent correlates for the FPP with WAI failed to materialize for both FACT and MAL groups under honest as well as simulated conditions. In looking at correlates with the WAI subscales (see Appendix B, Supplementary Tables B.1 and B.2), most relationships remained non-significant. Of interest, FACT simulators appeared more invested in sharing treatment goals ($r = .33$) than their MAL counterparts (see Supplementary Table B.2). While less than ideal, the FPP for both honest groups evidenced the predicted convergent correlates with IOS, with the strongest pattern being the IOS Attention and Positive Stimulation subscales (see Supplementary Table B.3). Those expressing strong needs for the therapeutic relationship were clearly receiving positive interpersonal benefits from it.

However, surprising results occurred with the simulation conditions (see Supplementary Table B.4). Rather than play up the interpersonal importance and value of the relationship, the FACT group manifested a very slight negative relationship with the FPP. This led to a tentative hypothesis that some members of the FACT group were trying to bolster their treatment needs by expressing disappointment in their ongoing relationships with treatment providers. To explore this hypothesis, IOS scores were examined for the FACT group between honest and simulation conditions. The average score difference between honest and simulated groups was striking (M = 43.80), with only 2 participants choosing to suppress their scores across conditions. In other words, the tentative hypothesis that individuals were attempting to strengthen treatment from providers by communicating dissatisfaction with relationships was not found.

The MAL simulation group appeared to take a slightly different approach from their FACT counterparts. In stark contrast to the FACT group, malingerers suppressed IOS scores by an average of 9.75 points across honest and simulated conditions. Rather than emphasize their positive interpersonal needs, MAL group in the simulation condition showed with virtually no relationship between the FPP and IOS. Instead, the MAL group appeared more willing to express antisocial attitudes in their efforts to secure unwarranted financial gains, resulting in a large correlation (r = .59) between FPP and ASC. Item-level examples are particularly instructive for the MAL group. They include large correlates (rs > .53) with various FPP items, such as "making up stories to keep doctors interested" and "pretending to be in crisis to get a lot of professional attention." Even more revealing was an ASC item addressing intentional harm, "causing hardships to others pays off for me," which evidenced large positive correlations with several FPP items. In their simulation condition, malingerers almost appeared to take pride in presenting their non-conforming views.

The distributions of scores on construct validity measures were investigated as possibly a partial explanation for the disappointing convergent correlates. To this end, the WAI had a markedly large range of scores for both MAL and FACT groups under honest and simulated conditions. However, when comparing the data to previous research on psychiatric inpatients, similar averages are produced (M = 59.20; see Moreno et al., 2018). When examining score distribution of the WAI and IOS, the data generally followed the expected patterns (i.e., normally distributed for honest conditions, skewed to the high end for FACT, and low end for MAL). Even when a few minor outliers on the WAI and IOS were removed, correlations with the FPP did not improve.

The relationships of FPP subscales to convergent constructs were next investigated to further understand the unexpected results (Supplementary Tables B.7 –B.10). Most had non-significant relationships with the WAI under simulated conditions, with the exception of the Patient Role subscale for factitious simulators (r = .34). In particular, the WAI Bond and Goal subscales had the most substantial relationships with internalization of patient status (Supplementary Table B.8). It appears the identification of the patient role as part of one's identity creates the desire for a strong connection with providers (Lawlor & Kirakowski, 2014). Contrastingly, the Patient Role subscale evidenced the largest negative correlations with the WAI for the MAL group (r = -.22, Supplementary Table B.8). Though this relationship was non-significant, it suggests that malingerers are less vested in their relationships with treatment providers, particularly regarding their patient status.

Furthermore, and as mentioned previously, the IOS and FPP evidenced moderate correlations when answering honestly for both FACT and MAL groups (Table 8). This finding provides at least modest support for the convergent validity of the FPP and IOS under standard

instructions. All three subscales of the FPP evidenced significant positive correlations with the FPP, with the Cost-Benefit Analysis subscale yielding the strongest relationship (r = .55; Supplementary Table B.3). Overall, while the examining the FPP subscale level provided a more nuanced approach, it did not fully explain the unexpected relations among construct-validity measures, particularly in regard to simulated conditions.

Although not the primary focus of the I-SIP, the convergent validity of the ASC was exceptionally strong with the LSRP, a measure of psychopathy, under honest conditions for FACT (r = .77) and MAL (r = .89) (see Table 8). . Moreover, these correlations followed a similarly strong pattern for simulated conditions at .71 and .87, respectively. As expected, LSRP Primary, the core features of psychopathy, produced the strongest correlations with the ASC (Tables B.5 and B.6). In contrasting two groups, the MAL group demonstrated a strong relationship with LSRP Secondary under honest and simulated conditions that were clearly higher than the FACT group. In subsequent analyses, differences in levels of psychopathy will be examined for both conditions via ANOVAs.

Discriminant Validity of the I-SIP

The relationships between FPP and the LSRP were predicted to be negative under both honest and simulated conditions; however, correlations proved to be much more variable. For the FACT group, a moderate correlation (r = .40) was observed under the honest condition, which virtually disappeared when participants were simulating (r = .07). The diametrically opposite pattern was observed the MAL group from honest (r = .03) to simulated (r = .44) conditions. The first pattern moved in the expected direction of diminishing the relationship from a moderately to minimally positive relationship. The second pattern was previously discussed as possibly displaying antisocial characteristics associated with feigned disability for financial gain.

It was predicted that FACT simulators would exhibit weaker relationships than MAL simulators on measures of antisocial characteristics. However, this investigation of discriminant validity was complicated by substantive differences under the honest conditions. As reported in Table 8, LSRP Total was more correlated with the MAL honest group (r = .89) than FACT honest group (r = .72). Taking into account this differences, the correlates do not strongly support this hypothesis. As slight evidence, the FACT group did evidence a small decrement on LSRP Primary from honest to simulated conditions (r = .85 to .80; see Supplementary Tables B.5 and B.6), which did not occur for the MAL group (r = .88 and .88). On LSRP Secondary, both groups decreased in the simulation condition with FACT being slightly larger (r = .55 to .42) than MAL (r = .81 to .72). Thus, these minimally positive findings remain insufficient to discriminant validity.

For the WAI, the MAL simulation group produced the lowest correlation with the FPP and WAI Bond subscale (r = -.13; Supplementary Table B.2). This finding was expected because it was presumed that those engaged in a malingering response style would be less invested in relationships with treatment providers than those feigning for internal reasons, such as desire for nurturance and attention from medical professionals (Feldman, 1996; Rogers et al., 2010).

Research Question 4

RQ4 asked whether simulation condition (MAL vs. FACT) produce predicted differences on the I-SIP. Hypothesis 8 predicted FACT simulators would evidence higher scores on the FPP and lower scores on the ASC than the MAL simulation condition. Contrastingly, Hypothesis 9 predicted MAL simulators would have higher scores on the ASC and lower scores on the FPP than the FACT simulation condition.

As the first step, the comparability of groups under the honest condition was examined (see Table 10). Despite quasi-random assignments, several generally small differences emerged with FACT being modestly higher on FPP and MAL showing a similar pattern on ASC and LSRP. Such findings might be understandable if the simulation condition had been administered first because some participants may have been primed for patient needs (FACT) or antisocially motivated feigned disability (MAL). However, this problem was circumvented by beginning with the standard administration (i.e., honest condition), which is the typical practice in simulation research (Merckelbach et al., 2009; Rogers, 2018). The potential effects of these modest patterns are considered in the Discussion.

Impressive findings strongly support the construct validity of the I-SIP in differentiating factitious and malingering presentations (Table 11). As hypothesized, factitious simulators evidenced dramatically higher scores on the FPP than those malingering (d = 3.17). For FPP subscales, the Relationship with Providers performed the best of all measures (d = 3.62) with the FACT group averaging close to 80% of the total possible score. While not as striking, MAL simulators produced significantly higher scores on the ASC than the FACT simulation group (d = -0.68). Again, this pattern is consistent with expectations and suggests malingerers are likely to display more antisocial characteristics.

Dramatically large disparities between MAL and FACT groups on the IOS also provided strong evidence of construct validity (Table 11). As predicted, FACT simulators endorsed extremely high levels of interpersonal orientation (IOS Total; d = 3.42). Marked discrepancy was observed across IOS subscales, with FACT respondents choosing to grossly exaggerate traits related to emotional support (d = 3.44) and positive stimulation (d = 3.64) compared with their MAL counterparts.

Table 10

*Differences between FACT and MAL Simulation Groups on Construct Validity Measures under **Honest** Conditions*

Scale or Subscale (# of items)	FACT *n* = 40		MAL *n* = 40		*F*	*p*	*d*
	M	*SD*	*M*	*SD*			
I-SIP FPP Scale (22)	37.73	10.20	33.10	8.65	1.54	.22	0.49
I-SIP Cost-benefit (4)	6.88	2.62	5.93	2.41	2.84	.10	0.38
I-SIP Relationship with Providers (7)	11.90	3.93	10.60	3.15	2.66	.11	0.37
I-SIP Patient Role (3)	5.15	1.70	5.50	1.41	1.00	.32	-0.22
I-SIP ASC Scale (22)	32.27	12.09	40.22	18.60	5.14	.03	-0.51
I-SIP Filler Scale (16)	56.05	7.96	57.03	7.89	.30	.58	-0.12
IOS Total (26)	70.18	13.96	72.10	14.37	.37	.55	-0.06
IOS Emotional (6)	19.43	4.11	18.38	4.26	1.26	.27	0.25
IOS Attention (6)	12.40	4.91	14.03	4.50	2.38	.13	-0.35
IOS Positive Stimulation (9)	23.40	6.72	24.20	7.22	.26	.61	-0.11
IOS Social Comparison (5)	14.95	3.25	15.50	2.94	.63	.43	-0.18
WAI Total (12)	58.70	8.59	57.70	7.56	.31	.58	0.12
WAI Bond (3)	13.98	2.56	14.08	2.26	.03	.85	-0.04
WAI Task (4)	20.05	3.13	19.33	3.05	1.10	.30	0.23
WAI Goal (5)	24.67	3.81	24.30	3.44	.21	.65	0.10
LSRP Total (26)	49.88	13.72	61.40	18.83	9.79	.01	-0.70
LSRP Primary Psychopathy (16)	26.80	8.02	34.18	11.01	11.73	.01	-0.77
LSRP Secondary Psychopathy (10)	23.30	6.49	27.78	8.06	7.49	.01	-0.61

Note. FACT = Factitious Disorder; MAL = Malingering; I-SIP = Inventory of Self and Interpersonal Problems; FPP = Factitious Psychological Presentation; ASC = Antisocial; IOS = Interpersonal Orientation Scale; LSRP = Levenson Self-report Psychopathy Scale; WAI = Working Alliance Inventory.

Table 11

*Differences between FACT and MAL Simulation Groups on Construct Validity Measures under **Simulated** Conditions*

Scale or Subscale (# of items)	FACT *n* = 40		MAL *n* = 40		*F*	*p*	*d*
	M	*SD*	*M*	*SD*			
I-SIP FPP Scale (22)	81.50	10.39	37.70	16.55	200.91	< .001	3.17
I-SIP Cost-benefit (4)	15.05	2.37	7.08	3.41	147.50	< .001	2.71
I-SIP Relationship with Providers (7)	27.72	3.69	11.50	5.16	261.25	< .001	3.62
I-SIP Patient Role (3)	10.30	2.22	4.20	2.54	130.50	< .001	2.56
I-SIP ASC Scale (22)	35.85	19.42	50.30	22.85	9.29	.01	-0.68
I-SIP Filler Scale (16)	57.65	6.87	53.93	6.39	6.30	.01	0.41
IOS Total (26)	113.98	12.57	62.35	17.29	233.42	< .001	3.42
IOS Emotional (6)	27.47	2.82	14.50	4.53	235.76	< .001	3.44
IOS Attention (6)	25.18	4.51	15.08	4.67	96.88	< .001	2.20
IOS Positive Stimulation (9)	39.33	5.01	19.63	6.80	217.45	< .001	3.30
IOS Social Comparison (5)	22.00	2.86	13.15	3.72	142.22	< .001	2.67
WAI Total (12)	74.93	8.53	44.55	10.51	201.51	< .001	3.17
WAI Bond (3)	19.10	2.45	10.67	2.94	194.14	< .001	3.12
WAI Task (4)	24.50	3.12	15.18	3.72	147.48	< .001	2.71
WAI Goal (5)	31.33	3.70	18.70	4.24	200.98	< .001	3.17
LSRP Total (26)	51.62	14.97	74.42	21.71	29.89	< .001	-1.22
LSRP Primary Psychopathy (16)	29.81	10.36	43.50	14.50	23.63	< .001	-1.09
LSRP Secondary Psychopathy (10)	21.82	5.76	30.93	8.44	31.74	< .001	-1.26

Note. FACT = Factitious Disorder; MAL = Malingering; I-SIP = Inventory of Self and Interpersonal Problems; FPP = Factitious Psychological Presentation; ASC = Antisocial; IOS = Interpersonal Orientation Scale; LSRP = Levenson Self-report Psychopathy Scale; WAI = Working Alliance Inventory.

As discussed with Hypothesis 6, the Emotional subscale of the IOS appears to represent a key distinction between FACT and MAL simulation presentations. Consistent with nurturance explanations, factitious response styles appear to be particularly characterized by the purported need for the expression of empathy, compassion, and concern from others (Feldman, 1996, 2004).

FACT simulators also presented with strikingly stronger allegiance with treatment providers, as evidenced on the WAI Total (d = 3.17) and subscales. It was anticipated that the WAI Bond subscale of the WAI would demonstrate the greatest differences due to FPPs promoting an overinvestment in relationships with mental health professionals (Rogers et al., 2010). However, the Bond and Goal subscales produced comparably extreme effect sizes. Regarding the latter, 92% of the FACT group endorsed the Bond item "My therapist and I are working on mutually agreed upon goals." Taken together, this pattern of results suggests factitious simulators are much more likely to prioritize mutual therapeutic goals and strong affective bonds with treatment providers.

As predicted, the I-SIP ASC clearly differentiated between malingering and factitious response styles with a large effect size (d = -1.22). The MAL simulation condition produced much higher LSRP total scores than typically found for offender samples (M = 55.84; Poythress et al., 2010). These differences were seen for both Primary (d = -1.09) and Secondary (d = -1.26) psychopathy. Participants motivated by monetary gain apparently prioritized endorsement of psychopathic lifestyle characteristics (e.g., a reduced capacity to regulate behavior), offering a clinically meaningful difference than the approach taken by FACT simulators.

The Utility of the I-SIP in Classifying Response Styles

The effectiveness of the I-SIP in classifying FACT and MAL simulation groups represents a primary objective of this dissertation because no assessment measures differentiate between these types of feigning (Merten & Rogers, 2017). Not surprisingly, FPP clearly surpassed ASC in both ruling-in and ruling-out factitious presentations. Impressively, both FPP cut scores have outstanding specificities (1.00 each). Pending cross-validation, this classification appears to have direct clinical relevance to feigned presentations.

Malingering should never be equated antisocial characteristics. DSM-5 attempts to use Antisocial Personality Disorder (APD) as an indicator for malingering. However, this contributes to misperceptions on relying on common characteristics rather than discriminating traits to differentiate malingerers from non-malingerers (Rogers & Bender, 2018). As a result, ASC is understandably less effective that FPP in differentiating between the simulation categories (see Table 12).

Table 12

Effectiveness of the I-SIP at Differentiating FACT from MAL Simulation Groups

Scale	Cut score	Utility Estimates						
		Sens.	Spec.	OCC[a]	BR = 15.0%		BR = 25.0%	
					PPP	NPP	PPP	NPP
FPP rule-in	≥ 75	.73	1.00	.93	1.00	.95	1.00	.92
ASC rule-in	≥ 40	.63	.79	.75	.34	.92	.50	.86
FPP rule-out	≤ 40	.78	1.00	.94	1.00	.96	1.00	.93
ASC rule-out	≤ 25	.15	.98	.77	.51	.87	.67	.78
FPP:ASC FACT	> 1.80	.85	1.00	.96	1.00	.97	1.00	.95
FPP:ASC MAL	< 1.20	.88	.93	.91	.67	.98	.80	.96

Note. For utility estimates, Sens. = sensitivity; Spec. = specificity; OCC = overall correct classification; PPP = positive predictive power; NPP = negative predictive power. BR = base rate. For scales, FPP = Factitious Psychological Presentations; ASC = Antisocial. [a] OCC was calculated at the 25% base rate.

Beyond single scales, highly divergent patterns were observed on the I-SIP scales for the two simulation conditions. For the FACT group, average scores on the FPP were more than twice ASC (i.e., FPP ÷ ASC yielding a ratio of 2.27) with a strikingly opposite pattern for the MAL group (i.e., yielding a ratio of .75).

As a more sophisticated approach to classifications, cut scores were established based on ratios of the FPP to ASC for both simulation groups. To identify factitious presentations, FPP:ASC > 1.80 achieved a very good sensitivity (.85) and perfect specificity (1.00). For malingering presentations, FPP:ASC < 1.20 produced excellent classification, though slightly lower utility estimates (.88 and .93). As a practical consideration, the factitious cut score of FPP:ASC > 1.80 minimized classification issues related to measurement errors. The highest ratio for the FACT group was 1.58, substantially below the cut score. Similarly, the next lowest ratio for the MAL group was 2.05, much higher than the cut score. While pending cross-validation, the factitious FPP:ASC > 1.80 is the strongest clinical indicator to date for differentiating between feigning presentations.

Research Question 5

RQ5 asked whether the SIMS cut scores will be effective at differentiating the MAL simulation and FACT simulation conditions. Hypothesis 10 predicted the SIMS would not effectively distinguish between FACT and MAL simulation conditions, simply because the SIMS was not designed to distinguish between response styles (Rogers et al., 2005). Consistent with hypotheses, both MAL and FACT simulation groups produced mean elevations on all SIMS scales (Table 13). While the SIMS subscales can be informative to what types of symptoms or problems individuals are feigning, the total score represents an interpretive guide for potential malingering (Widows & Smith, 2004). The authors of the SIMS (2004) recommend a cut score

of 14 for the SIMS Total to indicate a heightened probability of feigning, which both the MAL (*M* = 36.43) and FACT (*M* = 30.00) groups clearly surpassed.

Table 13

Differences between MAL and FACT Simulation Groups Responses on the SIMS Total Scores and Revised Scales

	FACT (*n* = 40)		MAL (*n* = 40)		*F*	*p*	*d*
	M	*SD*	*M*	*SD*			
SIMS Total	30.00	10.94	36.43	11.23	6.72	.01	-0.58
P	4.90	3.69	6.90	3.48	8.21	.01	-0.56
LI	3.38	3.04	4.93	2.91	5.42	.02	-0.51
NI	6.38	3.40	8.08	3.27	5.19	.03	-0.51
AF	9.80	1.90	9.08	2.12	2.60	.11	0.36
AM	6.20	3.32	7.38	3.26	2.33	.13	-0.36
RS	3.20	2.91	5.50	3.04	11.95	.001	-0.77
SC	3.25	2.39	3.98	2.59	1.69	.20	-0.29

Note. For SIMS scales: P = Psychosis; LI = Low Intelligence; NI = Neurologic Impairment; AF = Affective Disorders; AM = Amnestic Disorders; RS = Rare Symptoms; SC = Symptom Combinations.

As a general trend, the MAL group scored modestly higher on the SIMS Total and most subscales except for AF. For the two detection-strategy scales (Rogers et al., 2014), only Rare Symptoms (RS) can be considered as a moderate effect size. It is interesting to note, however, that the FACT group averaged far below the established cut score for feigning (> 6).

Using Rogers' (2008) feigning classification, Cohen's d values ≥ .75 are categorized as modest; only RS met this criterion. As discussed in more detail in the Discussion, it is possible those dissimulating for external gain are motivated to feign more severely and broadly than factitious simulators, and thus, generally had higher scores on SIMS scales. On more detailed analyses, five RS were higher in the MAL group taken from the Psychosis (3, 8, 69) and Low Intelligence (14, 21) subscales.

A crucial concern for this dissertation centers on the possible conflation with malingering and factitious response styles. To this point, SIMS cut scores (Total score and Rogers revised scales) did not effectively distinguish between MAL and FACT simulation groups. While the SIMS Total evidenced great sensitivity for a rule-in cut score of >14, its specificity was unacceptably low (.08; Table 14). Similar patterns were seen when examining a rule-out cut score of <10 for the SIMS Total. No participants in either simulation condition scored below 10, and thus, the specificity estimates were 0.00. Using Rogers et al. (2014) more conservative rule-in cut score of >44 for the SIMS Total, utility estimates improved drastically for specificity (.93), but at a cost to reduced sensitivity (.28)

Table 14

Effectiveness of SIMS Cut Scores in Differentiating MAL and FACT Groups

Cut Scores	Sens	Spec	OCC[a]	PPP and NPP at different base rates			
				BR = 15%		BR = 25%	
				PPP	NPP	PPP	NPP
Likely FACT							
Total < 10	1.00	0.00	.25	.15	0.00	.25	0.00
SC <2	.23	.85	.69	.21	.86	.33	.77
Likely MAL							
Total > 14[b]	.98	.08	.30	.16	.94	.26	.90
Total > 44[c]	.28	.93	.76	.39	.88	.55	.79
RS > 6	.40	.83	.72	.29	.89	.43	.81
SC > 6	.18	.90	.72	.24	.86	.37	.77

Note. For utility estimates, BR = base rate; Sens = sensitivity; Spec = specificity; OCC = overall; Co = correct classification; PPP = positive predictive power; NPP = negative predictive power. Cut scores for Revised Scales were established based on Rogers et al. (2014) suggested cut scores. [a] OCC was calculated at the 25% base rate. [b] Recommended cut score in SIMS manual. [c] Proposed cut score in Rogers et al. (2014).

Two SIMS scales showed promise in differentiating between feigned response styles. The modified Total > 44 demonstrated excellent specificity but classifies only about quarter of

malingerers (sensitivity = .28). In contrast, RS is slightly more balanced (.83 and .40 respectively). In addition, very low SC scores (< 2) are indicative of factitious presentations.

Supplementary Research Questions and Hypotheses

Supplementary Hypothesis 1

This stated that simulators high in antisocial traits on the LSRP will evidence lower sensitivity and predictive power on the SIMS than those low in antisocial traits. The authors of the LSRP (Levenson et al., 1995) do not provide cut scores, but opt for a dimensional approach to psychopathy. Given the limited group sizes, a median split with an indeterminate group removed (i.e., $\pm$ 1 SEM) was utilized to determine high vs. low antisocial characteristics for both MAL (SEM = 3.43) and FACT (SEM = 2.37) groups. For malingerers, LSRP Total scores with a *M* of 61.40, cut scores were < 71 for "low" and > 78 for "high." For the factitious group scores with a M of 49.88, cut scores < 46 were "low" and > 50 were "high". Only 11 participants were removed from analyses due to scores falling within 1 SEM of the median split.

Table 15

Differences between Low vs. High Antisocial Traits on the SIMS

Scale	Low		High		*F*	*p*	*d1*
	M	*SD*	*M*	*SD*			
SIMS Total							
FACT	27.44	7.90	34.75	12.53	4.23	.05	0.70
MAL	33.60	9.98	41.22	10.13	5.45	.03	0.76
d2	0.68		0.57				
SIMS RS							
FACT	2.83	2.75	3.94	3.19	1.17	.28	0.37
MAL	4.85	2.87	6.39	3.05	3.43	.07	0.52
d2	0.72		0.79				

(table continues)

Scale	Low		High		*F*	*p*	*d1*
	M	*SD*	*M*	*SD*			
SIMS SC							
FACT	2.56	1.76	4.19	3.19	3.52	.07	0.63
MAL	3.35	2.76	5.00	2.72	2.57	.12	0.60
d2	0.34		0.27				

Note. RS = Rare Symptoms; SC = Symptom Combinations. *ns* ranged from 16 – 18. d1 is the comparison of low FACT and high FACT groups and low MAL and high MAL groups. d2 is the comparison of FACT vs. MAL groups (low and high).

Consistent with previous literature suggesting persons with antisocial characteristics are not especially adept at malingering (e.g., Impelen, Merckelbach, Jelicic, & à Campo, 2018), those high in antisocial traits proved to be less skilled at feigning on the SIMS. This finding was particularly evident with the SIMS Total, producing almost moderate (d = 0.70 for FACT) to moderate effect sizes (d = 0.76 for MAL; see Table 15). However, the detection strategy based scales demonstrated greater variability among groups. High antisocial malingerers chose to emphasize endorsement of rare symptoms, while their factitious counterparts elected to affirm unlikely symptom combinations.

Contrary to predictions, individuals low in antisocial traits tended to be more effective at avoiding detection on the SIMS than those with high antisocial characteristics (Table 16). With the exception of the SIMS Total > 14 cut score, participants high in antisocial traits were generally better classified, with more balanced specificity and sensitivity. Using such a low cut score incorrectly classified factitious participants as malingering at unacceptably high rates (100% for high antisocial 89% for low antisocial). However, using Rogers et al.'s (2014) suggested >44 rule-in cut score, the amount of false positives reduced considerably for both high and low antisocial traits.

Table 16

Effectiveness of SIMS Rule-in Cut Scores for Differentiating MAL and FACT Groups

Cut Scores	Sens	Spec	OCC[a]	PPP and NPP at different base rates			
				BR = 15%		BR = 25%	
				PPP	NPP	PPP	NPP
High Antisocial Traits							
Total > 14[b]	1.00	0.00	.25	.15	0.00	.25	0.00
Total > 44[c]	.39	.81	.71	.27	.88	.41	.80
RS > 6	.50	.81	.73	.32	.90	.47	.83
SC > 6	.28	.75	.63	.16	.86	.27	.76
Low Antisocial Traits							
Total > 14[b]	1.00	.11	.33	.17	1.00	.27	1.00
Total > 44[c]	.06	1.00	.77	1.00	.86	1.00	.76
RS > 6	.24	.83	.68	.20	.86	.32	.77
SC > 6	.12	1.00	.78	1.00	.87	1.00	.77

Note. For utility estimates, BR = base rate; Sens = sensitivity; Spec = specificity; OCC = overall correct classification; PPP = positive predictive power; NPP = negative predictive power. Cut scores for Revised Scales were established based on Rogers et al. (2014) suggested cut score. [a] OCC was calculated at the 25% base rate. [b] Recommended cut score in SIMS manual. [c] Cut score proposed in Rogers et. al (2014).

Supplementary Hypothesis 2

Table 17

Gender Differences on the I-SIP

I-SIP Scale	Female n = 43		Male n = 37		F	p	d
	M	*SD*	*M*	*SD*			
FPP	35.07	9.36	33.65	9.70	.44	.51	0.15
ASC	35.37	14.13	37.27	18.26	.27	.60	0.12
Filler	55.65	9.43	57.56	5.57	1.18	.28	0.25

Note. FPP = Factitious Psychological Presentations; ASC = Antisocial Characteristics

This stated that females will demonstrate higher scores on the FPP and males will evidence higher ASC scores. Both predictions were not realized. Despite presumably higher

needs for nurturance (Gnaulati & Heine, 2001; Williams, Giles, Edwards, Best, & Daws, 1977), FPP scores for female participants were very close to males. Similarly, males tend to score higher than females of psychopathic features (Falkenbach et al., 2017; Rogstad & Rogers, 2008), but observed differences were minimal (d = 0.12). On a positive note, these initial results suggest that the I-SIP results may be generalizable across gender.

CHAPTER 4

DISCUSSION

For decades, both scholars and practitioners (e.g., Eisendrath, 1994; Overholser, 1990) almost blithely assumed that motivation for feigning could be inferred from settings and circumstances. These assumptions led to the notion that persons feigning in clinical settings must be motivated to adopt a "sick role" and thus should be described as "factitious" (Feldman & Cunnien, 2008; Yates et al., 2018). Comparatively, individuals feigning in forensic settings are putatively motivated by external reasons (i.e., malingering), such as monetary reward or more lenient legal sentencing (Yates et al., 2018). As a result, a possibly false dichotomy between malingering and factitious disorders endures.

While the underlying motivation continues to be the primary discriminator, Cunnien (1997) argued this simplification goes against much of what we know about the complexity of human behavior often involving multiple facets. The expectation that inclusion or exclusion of motivations can be used as the sole decisive factor ignores the reality of clinical practice. Cunnien (1997) posits that a patient may very well exaggerate or falsify symptoms for both external and internal gain concurrently. Overall, the conceptual underpinnings of malingering and factitious disorder are similar, leading to an obscured line of distinction between the two.

This chapter discussing relevant factors regarding factitious psychological responses is organized into six sections. First, conceptual ambiguities of factitious presentations are explored. Second, ambiguities and other challenges regarding the measurement of factitious presentations are discussed. Third, the explanatory models for feigning, which led to the development of the I-SIP are reviewed. Fourth, factitious assessments and psychometrics of feigning measures with factitious applications are critically examined, including the including the initial construct

validation of the I-SIP. The fifth section addresses FPP and its broad implications and preliminary recommendations for professional practice. In the sixth and final section, limitations, methodological considerations, and future directions are considered.

Conceptual Ambiguities

Asher's (1951) establishment of Munchausen's syndrome generated a much greater awareness that certain patients intentionally exaggerate or fabricate their physical symptoms, sometimes risking their own lives (e.g., unnecessary surgeries), for internal gains of medical attention. Munchausen's syndrome was broadened and eventually sparked the modern conceptualization of factitious disorder as it is known today. Following Asher's seminal paper, reports on patients with factitious disorders rose drastically, accounting for about 5% of patient encounters and have been documented in nearly every medical specialty (Kanaan & Wessely, 2010).The rise in cases led to the realization of a diagnostic void, as clinicians were faced with feigned presentations that did not neatly fit into already established diagnostic categories. The resulting insight led to a growing problem of diagnostic challenges, particularly with increased ambiguity surrounding factitious presentations.

As a result of diagnostic issues, a new category of factitious disorder was created to account for deliberately produced physical and psychological symptoms in DSM-III (APA, 1980; Caselli et al., 2017). This was in effort to create a diagnostic category to encompass feigning for no other reason other than internal motivations (Hyler & Spitzer, 1978; Turner, 1999). Throughout the years, several changes were implemented in DSM diagnostic criteria. As detailed in the Introduction, DSM-5 included extensive changes to diagnostic conceptualization. Arguably the most considerable shift involved the specification regarding external motivation in

DSM-5. The desire to play the sick role of a patient was removed, even though it was once a core requirement of the disorder (APA, 2013).

Yates et al. (2018) suggested this modification resulted from a well-intentioned attempt to utilize more objective measures such as establishing false symptoms, rather than rely on the current understanding of the underlying motivation. The purpose to objectively identify symptoms is aligned with the increasing focus and stronger literature base for factitious disorders in medical settings. Yet, this adjustment likely leads to the minimization of examining psychological factitious presentations where objective measures are rarely possible. Overall, shifts to move focus from considering underlying motivation in effort to increase objectivity largely ignores the complexity of factitious disorders and introduces problematic diagnostic issues.

Inherent difficulties persist for clinicians to discern factitious patients' motives for feigning. Guzman and Correll (2008) indicate formal diagnoses of factitious disorder only occur when patients are detected or readily admit to exaggerating or fabricating symptoms. Therefore, it is up to clinicians to rely on circumstantial evidence to first develop hypotheses and then confirm evidence of feigning due to the difficulty with ascertaining motive (Lawlor & Kirakowski, 2014). However, this approach contributes to considerable challenges for clinicians, as patients conceivably put forth effort to avoid detection, and clinicians are likely reluctant to make accusations without certainty. Cunnien (1997) suggests an increased recognition and understanding of factitious disorders may lead to increased knowledge of various motivations for feigning.

As a further nosological complication, researchers have raised the question whether factitious disorders have ever qualified as a formal diagnosis. On this point, Rogers, Bagby and

Rector (1989) questioned the legitimacy of factitious disorder as a diagnosis due to the absence of clearly defined inclusion, exclusion, or outcome criteria. At the foundation, DSM diagnoses are composed of these three necessary elements (Rogers, 2001). For a mental disorder to be diagnostically valid, is imperative to distinguish between core characteristics and common features (inclusion criteria), determine how the disorder differs from related disorders (exclusion criteria), and establish the likely course for the disorder (outcome criteria).

Determination of feigning based on the inclusion of external rewards alone poses a questionable and problematic distinction between a diagnosis of factitious disorder or a malingering V code. Therefore, as detailed in Velsor and Rogers (2019) and discussed in greater detail in the professional implications section of this chapter, factitious psychological presentations appear to be better conceptualized as a dimensional construct rather than a categorical diagnosis.

Measurement Challenges

Clinicians are faced with great disparities when comparing the availability of psychological literature on malingering and factitious disorders. Namely, a paucity of empirical research exists on factitious disorders despite documentation of patients intentionally falsifying or exaggerating symptoms in effort for internal gains (Ford, 2010). When searching for refereed articles on PsycINFO (retrieved May 27, 2020) using “forensic” and “factitious,” a mere 105 articles were produced. However, when replacing “factitious” with “malingering,” the number of articles increases by over 1000%, with 1,261 peer-reviewed articles.

Inherent difficulty in objectively measuring feigning motivated by internal reasons helps partially explains the dearth of research on factitious disorders (Feldman & Cunnien, 2008). This is in direct contrast to cases of malingering, where incentives for external reward appears to be

clearer, such as receiving monetary compensation in personal injury cases. In line with the lack of available objective measurements for factitious presentations, most of the literature on factitious disorders involves case studies or anecdotal reports from treatment providers (Yates et al., 2018). Therefore, a primary goal of the current dissertation aimed to address this gap in providing a standardized measure for factitious response styles.

A cornerstone issue resulting from the lack of standardized assessment tools for factitious disorders involves the potential for misclassification of response styles and the introduction of bias. Within the realm of feigned mental disorders, Merten and Rogers (2017) postulated a factitious bias in clinical, treatment-based settings and a malingering bias in forensic contexts. It is suggested the likely presence of a malingering bias for forensic examinees results from the high number of cases in which individuals may possess strong incentives to fabricate or exaggerate symptoms within the legal system (Ford, 2010; Merten & Rogers, 2010). Furthermore, the lack of research on factitious presentations in combination with the supposed scarcity of factitious cases in forensic settings also contributes to these inferences (Rogers et al., 1998; Young, 2015).

With the large discrepancy of research available, it is difficult to ensure forensic practitioners are informed sufficiently to appropriately consider rival hypotheses to malingering (Rogers et al., 2005). Concerning this point, speciality guidelines instruct forensic psychologists to take an impartial and balanced approach to assessment, expecting that they "weigh all data, opinions, and rival hypotheses impartially" (APA, 2013, p. 9). Thus, a resulting primary concern involves feigned presentations being mistakenly classified as malingering because competing hypotheses were not actively considered.

Given the high stakes nature of forensic evaluations, it is crucial that forensic

practitioners be as accurate as possible in classifying examinees. On this point, Rogers (2008, p. 7) highlighted the dangers of "equating infrequency with inconsequentiality." If factitious presentations are consistently overlooked in forensic assessments, many forensic examinees are presumably misclassified as malingering with impactful consequences. Forensic examinees who are feigning for external reasons (i.e., malingering) may obtain very different outcomes than those who are determined to be dissimulating for internal motives (i.e., factitious disorder). For instance, is possible that forensic practicioners may provide different recommendations for individuals who are feigning for dependency and emotional needs than those who are faking symptoms in effort for less punitive sentences.

Revisiting the Explanatory Models Leading to the Development of the I-SIP

Rogers (1990a, 1990b) explanatory models investigated the complex motivations to malinger. As a reminder, the explanatory models consist of pathogenic, adaptational, and criminological. In 2019, Velsor and Rogers adopted a parallel approach in effort to examine explanatory models for factitious presentations with an added nurturance model. The conceptual framework represented the first systematic attempt to examine factitious motivations via explanatory models without a restrictive focus on psychodynamically-based theories (Rogers et al., 2005). Table 1 in the Introduction summarizes the key conceptual elements in the four FPP explanatory models. The next four paragraphs summarize each model separately, contrasting FPP with malingering.

Pathogenic explanations posit that feigning represents individuals' ineffectual attempts to control underlying psychopathology by consciously reproducing symptoms of mental disorders. This model predicts that the once falsely produced symptoms will eventually deteriorate to actual symptoms and features of the genuine, underlying disorder (Rogers 1990a, 1990b). When

applying to FPPs, key themes of an underlying genuine disorder include helplessness, severe fear, and an addictive quality of feigning (Feldman, 2004; Lawlor & Kirakowski, 2014; Parker, 1996; Yates et al., 2018). Pathogenic explanations appear to be the least prototypical of the models for malingering, with forensic experts agreeing that malingered symptoms rarely evolve into genuine mental disorders (Rogers et al., 1998). However, many salient characteristics from the factitious literature are a strong fit for pathogenic motivations to feign (see Table 1; Velsor & Rogers, 2019).

The criminological model of feigning focuses motivations on antisocial drives and desires. In satisfying their own goals, feigners are often viewed as manipulative and lacking any positive regard for others (Rogers, 1990a). Criminological explanations are aligned closely with the DSM approach, which indicates malingering should be strongly suspected for uncooperative persons with Antisocial Personality Disorders (Berry & Nelson, 2010). While this explanatory model appears to be a good fit for motivations to malinger, there appears to be a lack of strong antisocial components with FPP motivations (Velsor & Rogers, 2019). Results from the current study underscore this perspective, as factitious participants exhibited 23% lower LSRP scores on average when compared to their malingering counterparts.

The adaptational model explains motivations for feigning in terms of a constructive attempt to avoid disadvantageous consequences (Rogers, 1990a) in difficult, if not adverse, circumstances. Engaging in a cost-benefit analysis, feigners intentionally exaggerate or fabricate symptoms, seeking to achieve the best or least aversive outcome. Extending this model to factitious motivations, FPPs may serve both situational and adaptive functions in adversarial contexts (Feldman, 2004). For example, FPPs may function as a situational coping mechanism for patients as well as serve more long-term rewards, such as provide a sense of stable identity.

FPPs may also promote a sense of mastery and control over one's circumstances (Feldman et al., 2001; Lawlor & Kirakowski, 2014).

Finally, the nurturance model appears to be specific to factitious presentations, while the other three models share the same core features between malingering and FPPs. Nurturance explanations involve internal motivations for feigning to include a persistent desire for nurturance and sympathy combined with strong dependency needs (Feldman, 1996). In addition, the desire to assume the sick role is central as part of the overly invested relationships with treatment providers (Feldman, 2001; Lawlor & Kirakowski, 2014; Rogers et al., 2010).

The Inventory of Self and Interpersonal Problems (I-SIP; Rogers & Velsor, 2017) was developed based on a thorough review of factitious literature delineating conceptual elements of factitious disorder. The primary motivation was the need for an evaluation tool assessing for factitious psychological response styles. The next section examines factitious assessments and psychometrics of feigning measures with factitious applications, including the initial construct validity of the I-SIP.

Factitious Assessments

Detection Strategies for Feigning

Detection strategies for malingered mental disorders have been systematically investigated for decades (see Rogers, 1997, 2008, 2018). This section is sharply focused on conceptual and empirical research that can be applied to differentiate the two main types of feigning, namely FPP and malingering.

Several scholars deserve the lion share of credit for their contributions to the factitious literature. Though no measures currently exist to differentiate FPP from malingering, themes from the literature base offer insights into potential conceptual detection strategies used thus far.

Feldman (1996, 2001, 2004) argues that factitious disorder should be considered when patients strongly identify with the patient role and display a clear longing for nurturance from treatment providers and caretakers. While this may be difficult to objectively measure, Feldman suggests that consistent with unmet needs, factitious presentations promote the identification of health providers as the primary, if not sole, caregivers (Feldman, 2004). This behavior may be manifested in inappropriately strong attachments or unrealistic expectations from treatment providers. Additionally, Yates and colleagues suggest factitious patients appear to be strongly motivated to increase the intensity and breadth of mental health care (Yates & Feldman, 2016; Yates et al., 2018). Therefore, frequent self-admission to hospitals or reports of an unlikely symptom presentation may indicate an increased likelihood for factitious behavior (Yates et al., 2018).

Research involving the Interview of Reported Symptoms (SIRS; Rogers, Bagby, & Dickens, 1992) and the SIRS-2 (Rogers et al., 2010) represents some of the only empirical studies involving the assessment of factitious presentations. The original SIRS utilizes both "unlikely" (uncommon in genuine patients) and "amplified" (frequency and intensity uncommon in genuine patients) detection strategies.

In addition to unlikely and amplified detection strategies, the SIRS-2 includes a screen for factitious disorders. A two-step approach is recommended for differentiating factitious presentations from malingering. The first step involves the establishment of the likelihood of feigned mental disorders in general. Second, individualized interview questions in conjunction with collateral information should be used to determine possible motive for feigning. Rogers et al. (2010) suggests a fairly straightforward approach to determining motivation via exploration of a cost-benefit analysis. This approach may include questions that parallel the MacArthur

decision model (Grisso, Appelbaum, Mulvey, & Fletcher, 1995), by examining an examinee's cognitive decision-making processes. For example, practitioners may wish to inquire about an individual's consequential thinking, such as what they think may happen in regard to specific choices regarding their presentation (e.g., feigning, genuine). Additionally, practitioners should consider how believable or convincing the examinee thought they were in their feigned presentation (Rogers et al., 2010; Velsor & Rogers, 2019). Through the exploration of questions like these, practitioners may formulate hypotheses about motivation.

Previous Literature on Factitious Assessments

SIRS and SIRS-2

In an initial investigation, Rogers et al. (1994) examined differences in a small sample of forensic inpatients between examines with factitious psychological disorders (n = 9) and suspected malingerers (n = 25) utilizing the SIRS (Rogers, Bagby, & Dickens, 1992). Although not statistically significant, interesting patterns emerged on the SIRS primary scales between feigning groups. Compared with malingerers, factitious examinees scored higher on SIRS scales with amplified strategies and lower on those with unlikely detection strategies. As a possible explanation, factitious individuals may not be motivated to report very unlikely clinical characteristics or symptoms (Rogers et al., 1994). On the other hand, malingerers in high-stakes evaluations may be strongly motivated to prove their putatively extreme impairment.

For this discussion, the nine factitious examinees were compared to 167 malingering simulators of the SIRS-2. The pattern for malingerers to endorse more unlikely symptoms than factitious examinees similarly observed (Rogers et al., 2010). Furthermore, factitious patients generally demonstrated fewer elevations on SIRS-2 primary scales, consistent with the notion of external incentive motivating more severe approaches to feigning.

PAI

Further contributing to research on factitious presentations, Rogers and colleagues (2005) conducted the first simulation design involving differentiating factitious disorder from malingering. The goal was to distinguish two factitious simulation groups (dependent and demanding subtypes) from a malingering simulation group on the Personality Assessment Inventory (PAI; Morey, 2007). Results indicated primary differences emerged on the Borderline Features scale (BOR), with both factitious groups producing above average scores. Rogers et al. (2005) suggest elevations on the Defensiveness Index (DEF) were the most useful for differentiating among malingering and factitious presentations. In particular, factitious simulators had significantly lower DEF scores than malingerers with a cut score of DEF $\leq$ 1, producing moderate sensitivity (.59) and good specificity (.88). Overall, the authors conclude low DEF scores may indicate a heightened propensity for factitious presentations. These were the only utility estimates in the literature base to date comparing malingering and factitious response styles.

Beyond direct comparison of malingering and factitious classification accuracy, Hawes and Boccaccini (2009) conducted a meta-analysis of PAI feigning indicators reviewing 26 separate studies. In general, simulated malingerer's Negative Impressive Management (NIM) scores were comparable to those found for factitious patients in Rogers et al. (2005). Though Hawes and Boccaccini (2009) utility estimates did not directly compare factitious and malingering response styles, cut scores of NIM $\geq$ 81 (.73 sensitivity and .83 specificity) provided the highest overall classification rates for identifying feigning. However, both dependent factitious (*M* NIM = 57.50) and demanding factitious (*M* NIM = 63.56) presentations were below this cut score (Rogers et al., 2005).

SIMS

Beyond the of the PAI, Rogers and collegues (2005) investigated response style differences between malingerers and factitious participants on the SIMS. Results indicated two primary findings: (1) malingerers tended to score highest on the Neurological Impairment (NI) scale and (2) factitious participants scored higher on the Affective Disorders (AF) scale. These results are very comparable to those of the current dissertation, in which malingerers evidenced modestly higher scores on all SIMS scales than factitious participants with the singular exception of AF. Perhaps the nature of AF items (i.e., items related to depression, or more "typical" mood problems) motivate considerably more endorsement from factitious examinees. Many conceptual components central to FPPs involve affective, emotional needs such as heightened dependency (Feldman, 2004) and unmet needs for caring (Feldman 1996), which may be conceptually similar to depressive symtomology. As a further possible explanation, Parker (1996) found that diagnoses such as depressive disorders may contibute to and help maintain FPPs.

Furthermore, Rogers et al. (2005) found the SIMS scales and total score did not differentiate between the factitious-psychological and malingering conditions. Similarly for the current study, though malingerers produced modestly higher scores on most scales, both groups produced consistent mean elevations on SIMS scales. For the detection strategy-based scales, RS performed the best at discriminating malingerers from factitious presentations, producing a moderate effect size (d = -0.77). In both Rogers et al. (2005) and the current study, malingerers tended to endorse rare symptoms on the SIMS at a higher frequency than their factitious counterparts. This shared finding suggests the external incentive of malingering possibly motivates a more severe and broad approach to feigning. In particular, malingers scored consistently higher on specific items from the Psychosis (3, 8, 69) and Low Intelligence (14, 21)

subscales in the current study. Therefore, individuals choosing to feign cognitive/intellectual impairment and symptoms of thought disorder may have an increased likelihood for malingered presentations.

For utility estimates, SIMS cut scores (Total score and Rogers revised scales) did not effectively distinguish between MAL and FACT simulation groups. However, two SIMS scales showed modest utility in differentiating between feigned response styles. The modified Total > 44 (proposed by Rogers et al., 2014) evidenced excellent specificity when compared with the Total > 14 cut score suggested in the manual (.93 vs. .08, respectively). However, there is a drastic cost to sensitivity, as only 28% of malingerers are correctly classified with the modified Total (compared with 98% for Total > 14). For classifying factitious presentations, low SC scores (< 2) appear to be moderately effective. In fact, factitious simulators averaged far below the suggested cut score (> 6) for both detection-strategy based scales (RS and SC). As the current dissertation represents the first investigation of the effectiveness of SIMS cut scores in differentiating malingering and factitious response styles, examination of reproducibility is warranted.

Classification Accuracy of the I-SIP

As a very positive finding, the I-SIP cut scores (i.e., FPP and ASC rule-in and rule-out cut scores and FPP:ASC ratio scores) generally produced much stronger utility estimates, when compared past simulation research (i.e., Rogers et al., 2005). In particular, the FPP:ASC ratio scores performed exceptionally well. In fact, sensitivity estimates of the ratio scores were nearly twice that of the DEF < 1 cut score proposed by Rogers and colleagues (2005). Rather than single-scale differences, ratios may offer a more sophisticated measure of a particular construct of interest (Martin, Hoffman, & Donders (2003). In this case, FPP:ASC ratio scores provide a

method of detection strategy examining the proportion of factitious items to antisocial items on the I-SIP. The ability to correctly classify response styles is improved, as the cut scores go in the opposite direction (i.e., MAL < 1.20; FACT > 1.80).

As stated in the Results, the FPP generally produced better classification accuracy than the ASC. FPP rule-in and rule-out cut scores evidenced perfect specificity (1.00) and good sensitivities (.73 and .78, respectively), much better than ASC utility estimates. Of importance, malingering should never be equated with antisocial characteristics. The DSM approach indicates malingering should be strongly suspected if a person has Antisocial Personality Disorder (APD; Berry & Nelson, 2010). However, as Rogers (2018) addressed, reliance on common rather than distinguishing characteristics is bound to fail. Simply because many antisocial persons may malinger does not prove the converse to be true. As an extreme analogy, most malingerers are ambulatory, but we would never conclude that all ambulatory persons are malingerers. Thus, antisocial characteristics are not expected to be an effective discriminator.

While cross-validation is warranted, the FPP:ASC is the strongest clinical indicator to date for differentiating between factitious presentations from malingering. FACT participants' average ratio scores (2.27) were over 3 times that of their malingering counterparts (.75) producing an extremely large effect size (d = 2.91). In particular, the proportion of items with antisocial themes such as a disregard for others and a selfish nature, compared with FPP items involving a desire for strong relationships with providers were particularly strong differentiators.

Distinguishing examples from the ASC include, "I don't feel bad for born losers" and "When it comes to the criminal justice system, my main goal is to not get caught." In contrast, FPP items with the largest differences consist of, "I have pretended to be in crisis just to get lots of professional attention" and "I admire my doctor more than is proper." Further validation and

replication in future research would be valuable for exploring particular I-SIP items that may be especially useful in differentiating response styles.

Inherent challenges persist when asking practitioners to think about proportions rather than a seemingly more definitive cut score. This requires an assessment tool to include items or scales intended to specifically address different response styles, rather than a more simple approach of measuring a unitary construct. However, considering ratio scores may represent advancement to the current approach to assessment of response styles. Taken together, according to the current preliminary data, ratio scores appear to be the most effective approach to distinguishing between response styles thus far.

Construct Validity of the I-SIP

Chronbach and Meehl (1955) determined three central steps to construct validity. First, theoretical concepts and their proposed interrelations must be established. Second, approaches to measure the hypothesized relationships among constructs are developed (i.e., via experimental design). Finally, the predicted relationships among constructs and their observable expression must be empirically tested. For the current dissertation, the first and second steps are detailed in the Introduction and Method sections, respectively. Therefore, the investigation of construct validity for the newly developed I-SIP was a primary goal (i.e., third step) with the establishment of scale homogeneity as the immediate goal.

Scale Homogeneity

Clark and Watson (1995) delineate the importance of strong internal consistencies and acceptable inter-item correlations for the establishment of scale homogeneity. Reassuringly, both the FPP and ASC produced impressive alphas. In particular, the FPP produced an excellent alpha of .86, clearly surpassing Nunnally's (1967) classification of alphas $\geq$ .80 or greater as a general

criterion and close to alphas ≥ .90 for clinical settings. Furthermore, inter-item correlations for the FPP were in the recommended range, suggestive that content of the items are contributing to unique variance within factitious presentations. For the ASC, alpha coefficient (.95) was even more remarkable. However, the relationships among items were at the high end of the recommended range at .50. This may suggest that ASC item content is verging on the edge of redundancy (Cohen & Swerdlik, 2005). Taken together, the data regarding the scale homogeneity of the FPP and ASC are highly positive, particularly for the initial exploration of the I-SIP's reliability.

Interestingly, the Filler scale produced a moderate alpha (.76), which was unexpected because its items were included to disguise the true purpose of the I-SIP and thus, reduce face-validity (Kumar, Lebo, & Gallagher, 1991). As mentioned in the Results, however, the items may not function as intended (i.e., items without a particular response pattern). Instead, participants provided a majority of affirmative responses to Filler items. This pattern was seen for both honest and simulated conditions, but was especially evident among factitious simulators (i.e., averaging over 72% affirmative responses on the Filler scale). An examination at the item-level was informative, as a few items in particular appeared to be large contributors to similar response patterns among participants. Under simulated conditions, virtually all factitious participants affirmed the items, such as (a)"Loyalty is something I strongly value among friends and family" (92.5%) and (b) "I am not bothered by lengthy forms when applying for something important" (95.7%). Perhaps participants assuming the role of individuals desperately desiring care and attention from others wanted to project an image of overly virtuous persons.

The unexpectedly high reliability of the Filler scale suggests item content would require revision if the scale were to function as intended. An effective approach may be to make the item

content more neutral, thus reducing socially desirability. Kestembaum and Hammersla (1976) recommended that different choices be matched on social desirability to diminish impression management.

Despite strong scale overall homogeneity, the FPP subscales (i.e., Cost-Benefit Analysis, Relationship with Providers, Treatment Needs, and Patient Role) had marginal to poor alpha coefficients. The most likely explanation centers on the lack of empirical data regarding these formulations, which are largely based on a scattering of case studies.

It is possible that the low number of items on the subscales contribute to the lack of strong reliability estimates, as the subscales range anywhere from 3 to 8 items. Harvey, Billings, and Nilan (1985) suggest that at least 4 items per scale are needed to effectively test the homogeneity of items within each latent construct. Conversely, other scholars have indicated adequate scale reliability can be achieved with as few as three items (Hinkin, 1995). Interestingly, the FPP subscale with the highest number of items produced the lowest alpha (Treatment Needs $\alpha = .45$), while the subscale with the fewest items achieved the strongest alpha (Patient Role $\alpha = .68$).

Due to the unacceptable alpha, the Treatment Needs subscale was dropped. Streiner (2003) posited unacceptable alphas that result in greater than 50% non-systemic error have little value in scale interpretation. The Treatment Needs subscale covers the broadest scope of FPP. Largely derived from pathogenic explanations, patients with FPPs appear to be strongly motivated to increase the intensity and breadth of mental health care (Yates et al., 2018). However, this construct can include vastly different FPP elements such as feelings of being trapped or helpless (Feldman, 2004), fearing the loss and support of loved ones or treatment providers (Lawlor & Kirakowski, 2014), or being especially demanding of treatment and care

(Yates et al., 2018). These various elements of pathogenic explanations provide valuable insight for how FPPs are maintained over time (Velsor & Rogers, 2019), but also exemplify the comparative broad scope of the Treatment Needs subscale. Therefore, it is possible the variability of conceptual elements, and resulting item content of the subscale, partially help explain the lack of strong subscale homogeneity.

The three remaining subscales yielded marginal alphas. While subscales can be particularly informative for what elements of a disorder is being reported (Hyer, Harkey, Harrison, 1986), their interpretations should be considered more tentative and hypothesis-generating. The overarching FPP scale clearly wins out when comparing scale homogeneity to that of its subscales. Therefore, the overall FPP scale is recommended for differentiating between response styles.

Convergent Validity

Campbell and Fiske (1959) provided the foundation for approaches to establish construct validity, primarily through the examination of convergent and discriminant validity. For convergent validity, variables should "correlate higher with an independent effort to measure the same trait than with measures designed to get at different traits" (p 83). As noted in the Results, the convergent correlates between construct validity measures were largely disappointing. Campell and Fiske (1959) propose the examination of alternative possibilities if inadequate correlations are found, including the possibility that one method is inadequate for measuring the trait. Importantly, the scholars indicate the failure to demonstrate convergence may lead to conceptual developments, rather than to the abandonment of a test. The next few paragraphs explore possible explanations for the lack of strong convergence between the FPP and selected measures.

Unexpectedly low convergent correlates may have resulted from problems with selection of construct validity measures (i.e., WAI and IOS). A central element of factitious presentations involves patients desiring, even demanding, higher levels of care (Yates et al., 2019). Motivated by a longing for nurturance from treatment providers and caretakers, these unmet psychological needs are fulfilled by exaggerating or fabricating symptoms (Velsor & Rogers, 2019). The WAI is intended to assess the alliance between a patient and treatment staff, including agreement on tasks and goals of therapy and the development of an effective bond (Horvath, 1992). If individuals with FPPs truly feel they need or deserve more intensive treatment, would they be likely to rate agreement on tasks and goals highly? Or, alternatively, would they perhaps be inclined to disagree on these facets in effort to express their dissatisfaction with their care?

The current results indicate factitious simulators are at least projecting a positive image of the therapeutic relationship despite the conceptual argument that factitious individuals may be unhappy with the level of care they are receiving (Feldman, 1996, 2004). Factitious simulators generally evidenced large increases on their perceptions of the therapeutic alliance, with nearly 30% average increases on the WAI when compared with their honest responses. This was especially prevalent on the Goal subscale, suggestive that factitious simulators generally reported a high level of agreement with providers in regard to the goals of treatment. Perhaps the unrealistic and possibly romanticized view of mental health professionals (Rogers et al., 2010; Velsor & Rogers, 2019) helps partially explain high ratings of the working alliance, regardless of patients' perceptions of needs for care being met.

Upon reflection, it is possible the IOS was not the best match for convergent validity due the almost exclusive focus on the nurturance model at the expense of other explanatory models. The IOS focuses on four dimensions assumed to underlie the affiliation motivation, including the

need for empathy, compassion, and attention from others (Hill, 1987). The measure largely corresponds with nurturance conceptual elements such as the dependency and desire for intense interpersonal relationships with providers (Feldman, 2004) and family/friends (Catalina et al., 2008). However, other measures of interpersonal affiliation considered for the current study (e.g., Need for Affiliation Scale,(Jackson, 1984) appear to have an even narrower focus.

Therefore, difficulty in obtaining near-neighbor measures for many of the FPP conceptual elements may help partially explain disappointing convergent correlates. Some components appear to be so unique to FPPs, that they are not well represented in already established measures. For example, the literature supports FPPs serving an adaptational role, allowing patients to meet psychological needs at the price of dependency. Similarly, Lawlor and Kirakowski (2014) found evidence for FPPs serving the function of a coping mechanism, by providing a method of avoidance and control. While the I-SIP encompasses these adaptational conceptual elements, there are virtually no psychometric tools to make comparisons with or provide construct validity of these components.

The typical range of scores for clinical populations on the convergent measures was explored as a possible explanation for the unexpectedly low correlates. However, the current study generally produced comparable averages to that of previous literature. For instance, inpatients' typical ratings of the therapeutic alliance were very similar to the current study, with less than a 3% difference (Moreno et al., 2018). Similarly, literature on the IOS used in clinical populations indicates comparable averages to current data (Hill, 1987). In summary, though various approaches were investigated for potential impact on disparate findings of convergent validity, no solid explanations were established.

In contrast to the WAI and IOS, the ASC produced exceptionally strong convergent

correlates with the LSRP. Overall, this provides substantial evidence that the ASC is a good measure of antisocial characteristics. In particular, the LSRP Primary subscale produced the strongest relationships with the ASC. That is, psychopathic emotional features, such as manipulativeness and superficial charm (i.e., primary psychopathy) appear to be especially well represented on the ASC of the I-SIP. Differences in levels of antisocial traits across simulation conditions are further examined in the section detailing the impact of the simulation condition on I-SIP responses.

Discriminant Validity

As a parallel to convergent validity, discriminant validity represents a core component of construct validity (Campbell & Fiske, 1959) that is often de-emphasized in test development. This section addresses discriminant validity more generally within the multi-trait, multi-method framework. The next section utilizes a much more focused simulation design for a very specific application of discriminant validity in differentiating FPP from malingering.

Consistent with antisocial traits resulting in a lack of empathy or interest in genuine interpersonal relationships with others (Igoumenou et al., 2017), higher levels of antisocial traits were expected to contribute to worse perceptions of the working relationship with providers (i.e., negative correlations between the WAI and antisocial characteristics). Malingerers have been reported to be especially uncooperative with providers in effort to avoid detection (Millis, 2008). On the contrary, factitious individuals are generally over-involved in the treatment process and demonstrate a higher need for nurturance from health care professionals (Feldman, 1996, 2004; Rogers et al., 2010). As expected, the ASC demonstrated significant negative relationships with the WAI for malingerers. A similar, but weaker relationship was seen for participants asked to simulate a factitious response style. The LSRP and WAI Total had significant negative

relationships for all participants when responding honestly and simulating, lending additional evidence to the link between antisocial characteristics and poorer relationships with treatment providers.

As further evidence, malingering simulators exhibited negative relationships with the FPP and WAI Bond subscale. While these scales had positive relationships for factitious simulators, malingerers clearly did not endorse as strong of bonds or connections with treatment professionals. Taken together, these results provide support to the hypothesis that individuals with higher antisocial traits are less vested in and have poorer perceptions of their relationships with treatment providers than those feigning for internal reasons, such as desire for nurturance and attention from medical professionals (Feldman, 1996; Rogers et al., 2010).

FPP relationships with the LSRP were hypothesized to be negative; however, correlations were much more variable than anticipated. Negative relationships were expected, as there generally appears to be an absence of criminological or antisocial motivations in factitious presentations (Velsor & Rogers, 2019). While the relationship between FPP and LSRP decreased as anticipated for factitious participants across conditions, the opposite pattern was observed for malingerers. As previously discussed, it is plausible that malingerers were motivated to feign more broadly in effort to appear completely disabled for financial gain.

Discriminant Validity on the I-SIP between FPP and Malingering

Response-style literature has utilized simulation designs to assess for discriminant validity for over 50 years (e.g., Haynes, 1978; Rogers, Gillis, Dickens, & Bagby, 1991; Rogers et al., 2013). Within this context, Lowe and Ryan-Wenger (1992) describe how methods other than correlations, such as the analysis of variance (ANOVA), can provide support for discriminant validity. The authors indicate different methods are undeniably assessing distinct constructs

when clear differences in response patterns between groups are shown. Therefore, as a more targeted approach to discriminant validity, differences in responses between simulation conditions (i.e., FACT and MAL) were examined.

As a first step, differences in responses between FACT and MAL participants when answering honestly were investigated. Some previous studies have combined genuine conditions (e.g., Kasten, Freund, & Staufenbiel, 2020; Weiss et al., 2013), whereas others have not (e.g., Rogers, Payne, Correa, Gillard, & Ross, 2009; Rogers, Robinson & Henry, 2017). However, it was believed to be more rigorous to keep with original data analytic plan, as combining groups may obscure some salient differences. Keeping the groups separate is a more stringent approach to ensure the results for simulated conditions are interpreted appropriately. For example, if there happened to be substantial differences among participants on the IOS when answering honestly, it would be difficult to make comparisons on this scale between simulated conditions. Thus, implications for factitious presentations would have to be interpreted cautiously.

Despite quasi-random assignment, several small differences between groups emerged. Most notably, the MAL group evidenced higher levels of antisocial characteristics as measured by the ASC and LSRP. Rather than trying to manage negative impressions, the malingering group appeared to emphasize their willingness to deceive others. They evidenced substantially higher LSRP total scores in the malingering simulation condition (M = 74.42) than is typical for offender samples (M = 55.84; Poythress et al., 2010). To this end, malingerers increased their reporting of antisocial traits by 21.2% on the LSRP and by 25.1% on the ASC across conditions in the current study. This is generally in contrast to previous literature suggesting most malingerers try to suppress antisocial characteristics (e.g., Gardner, & Boccaccini, 2017; Hill, 2013; Rogers & Cruise, 1998). For example, studies examining the impact of feigning disability

on multiscale inventories (e.g., PAI, MMPI-2), show individuals are typically motivated to minimize the perception of traits like intentional deceit and the exploitation of others (Arbisi, Ben-Porath, & McNulty, 2006; Rogers, Gillard, Wooley, & Rosee, 2012). Furthering this point, Gardner and Boccaccini (2017) found that as sexually violent offenders increased symptom exaggeration on the PAI (i.e., NIM), they suppressed the PAI Antisocial Features (ANT) subscale. In general, individuals attempting to overstate pathology generally had lower ANT scores, lessening the overall validity of the self-report measure (Gardner & Boccaccini, 2017).

However, other research has demonstrated opposite findings, such that malingerers may show heightened antisocial characteristics. Heinze and Vess (2005) found forensic examinees that had higher *F* and *Fp* scores on the MMPI-2 tended score higher on the PCL-R (i.e., exhibited higher antisocial traits). Similarly, Kucharski and Duncan (2006) found individuals were more likely to get classified as malingering on multiscale inventories (e.g., PAI and MMPI-2) and structured interviews (e.g., SIRS) when they demonstrated stronger antisocial characteristics.

Impressive differences with very large effect size sizes were achieved for all construct validity measures under simulated conditions. For the FPP, it appears that while all conceptual elements performed well at discriminating MAL and FACT groups, over-investment in relationships with treatment professionals was a particularly strong differentiator (Feldman, 2004; Rogers et al., 2010). Interpersonally, factitious patients' romanticized perceptions of treatment providers may be generalized to a sense of special treatment for a special patient, thus inevitably reinforcing the nurturance model.

Core differences between factitious presentations and malingering may involve individuals' thoughts, emotionality, and behaviors towards treatment providers (Velsor &

Rogers, 2019). Although malingerers may exhibit some superficial positive emotions, particularly at the beginning of treatment, this is not likely to sustain. Malingerers tend to be primarily concerned with being convincing in their display of false symptoms, while monitoring professionals' reactions for perceived believability. Conversely, factitious patients are likely to focus greatly on maintaining a positive self-image to ensure the continuation of care and dependency on providers (Feldman, 2004; Lawlor & Kirakowski, 2014). These strong emotions towards treatment providers are likely to be easily recognized and strengthened by their behaviors and communication (Velsor & Rogers, 2019).

As further support for nurturance explanations of FPP, factitious simulators demonstrated IOS Emotional Support subscale scores nearly twice that of their malingering counterparts. This finding clearly indicates dramatically higher needs for compassion, concern, and empathy from others. These results provide further evidence that factious presentations are at least partially motivated by intense dependency needs (Cunnien, 1997) and difficulty getting needs met in social relationships (Rogers et al., 2005).

Moreover, measures of antisocial characteristics (i.e., ASC, LSRP) clearly differentiated between malingering and factitious response styles, with malingerers choosing to increase scores dramatically across conditions. While some researchers have found FPPs to be motivated by pathological lying (Yates et al., 2018) or gratification from deceiving others (Ford, 2010), criminological perspectives clearly align better with malingering (Velsor & Rogers, 2019). As supported in the current results, prototypical analyses (Rogers et al., 1994, 1998) found prominent antisocial motivations and psychopathic characteristics in forensic and non-forensic settings for malingering. Interestingly, Rogers and colleagues (1998) found malingered mental disorders produced lower prototypical ratings than feigned medical disorders (d = 0.36).

Secondary psychopathy traits, such as impulsivity and lack of long terms goals, served as a particularly strong discriminator (d = -1.26), with malingerers reporting over 41% more psychopathic lifestyle characteristics than factitious participants.

Implications for Professional Practice

The limited available research on factitious disorders has primarily conceptualized FPPs as a categorical diagnosis. However, factitious presentations may be more appropriately considered a dimensional construct. Rogers, Bagby, and Vincent (1994, p. 91) describe factitious disorders as a "conundrum for forensic experts." The significant diversity in clinical presentations and problematic DSM-IV diagnostic criteria involving the "sick role" as the exclusive motivation were central arguments against the legitimacy of factitious disorder as a formal diagnosis. Extensive documentation of clinician encounters provides confirmation of the remarkable complexity and heterogeneity of factitious presentations (Yates & Feldman, 2016; Yates et al., 2018). Furthermore, and as stated previously, factitious disorder appears to lack core requirements of a diagnosis (i.e., formal and clear inclusion, exclusion, and outcome criteria; Rogers et al., 2012).

Moreover, changes to DSM-5 diagnostic criteria further complicates conceptual understanding of factitious presentations. One of the most notable changes involved removing the subtypes (i.e., physical and psychological). DSM-5 also removed the once core criteria of motivated by the "sick role," and instead, indicated feigning must be present "even in the absence of obvious external rewards" (APA, 2013a, p. 325). While these changes were aligned efforts to shift away from understanding the underlying motive in favor of more objective measures, it greatly diminishes the focus on psychological presentations (Velsor & Rogers, 2019). In particular, ignoring the underlying motivation neglects the complexity of factitious

presentations and undermines the importance of the core distinguishing factor from other response styles, namely malingering.

Thus, as argued in Velsor and Rogers (2019), the current study provides indirect evidence that FPPs can be considered a psychosocial condition that varies over time and circumstances, rather than a formal diagnosis. Factitious presentations would then be placed accordingly in V62.89, "other problem related to psychosocial circumstances," much like a malingering V code that "may be a focus of clinical attention" (APA, 2015, p. 725). Importantly, considering factitious presentations as a dimensional construct allows for direct comparisons of response styles of FPPs and malingering. Previous research has also provided support to the notion of factitious presentations as a response style tied to situational factors. For example, Catalina et al. (2008) found factitious patients' symptoms mysteriously disappeared when admitted to the hospital, but symptoms reappeared and increased when practitioners discussed discharge with the patients.

Though the current results are preliminary, factitious presentations are clearly related to situational facets, as demonstrated via differences in honest vs. simulated responses on the I-SIP. Factitious participants chose to increase their responses on the FPP scale and subscales by over 100% consistently from honest to simulated conditions, providing evidence of circumstantial motivators within the simulation scenario. In particular, factitious simulators were especially motivated to feign strong needs for intense relationships with treatment providers, averaging a 132.9% increase from their honest responses.

A cornerstone issue resulting from conceptual ambiguity and general lack of understanding of factitious disorders involves the potential for misclassification of response styles (Cunnien, 1997; Velsor & Rogers, 2019). Practitioners in clinical, and especially forensic

settings, should not ignore factitious presentations as a rival hypothesis in making determinations of malingering.

The lack of effectiveness of SIMS cut scores in distinguishing response styles in the current study underscores this problem of potential misclassification. It is important to note that the SIMS assesses for feigned mental disorders, but was not designed to distinguish between exaggerated response styles (Rogers et al., 2005). Predictably, the SIMS generally performed very poorly at discriminating between factitious and malingered response styles, with both groups producing mean elevations on all SIMS scales. Utilizing the authors' suggested SIMS total > 14 cut score, virtually all factitious examinees were misclassified as malingering (92%). Classification accuracy improved drastically when using Rogers' Modified Total > 44, but at a substantial cost to sensitivity. Taken together, these results highlight the concern of possible conflation with malingered and factitious response styles. Thus, practitioners should exercise caution when assessing for feigned presentations and increase awareness and consideration of the potential for alternative response styles.

Current results provide initial insight for how the I-SIP may be best used in clinical practice. Because data have not been cross-validated, the I-SIP is most appropriately used as a screen at the current time. Screening measures have the potential to provide a time-efficient preliminary assessment (Rogers et al., 2014).

In particular, the FPP:ASC ratio scores appear to be especially useful for differentiating malingered from factitious presentations. Utilizing the cut scores proposed in Table 12 (> 1.80 for FACT; < 1.20 for MAL), the best available utility estimates were achieved with excellent specificity and good sensitivity for both malingerers (.93 and .88, respectively) and factitious (1.00 and .85, respectively) examinees. Therefore, clinicians may wish to administer the I-SIP

and calculate the FPP:ASC to clarify questions of potential dissimulation and aid with consideration of different response styles.

On an item-level examination at the, several I-SIP items were especially good at discriminating between factitious and malingering presentations (*d*s > 2.50). On the FPP, factitious examinees affirmed two items at much higher rates: “I admire my doctor more than is really proper” (*d* = 2.79) and “I see counselors as true care-givers” (*d* = 3.28). These items from the Relationships with Provider subscale provide empirical evidence consistent with nurturance explanations of FPPs (Feldman, 1996, 2004; Lawlor & Kirakowski, 2014; Rogers et al., 2010).

Conversely, several ASC items were frequently reported in the MAL conditions. Examples include, “I use anger as a means to get what I want out of weaker persons” (*d* = 2.75) and, “When it comes to the criminal justice system, my main goal is to not get caught” (*d* = 3.12). On a practical basis, clinical practitioners may want to modify the format of these questions and intersperse them with other relevant clinical inquiries.

Methodological Limitations

Valuable to both researchers and practitioners, the current study provided the first systematic assessment of factitious psychological presentations as a dimensional construct. However, the current dissertation had some methodological limitations that could be largely addressed by future research.

Because of its originality, the study lacked a body of past research on which to build, thus resulting in several challenges. One primary challenge involved selection of relevant construct-validity measures for the I-SIP. With no previous research, the primary basis of the I-SIP involved the compilation of conceptual themes from the scholarly literature, buttressed only with case studies.

Cross-validation and extension of this research is definitely warranted. It would be greatly beneficial if future research were conducted on the I-SIP's utility in other general clinical settings (e.g., outpatient), and especially, forensic settings. In particular, comparing results to those of a true malingering group or true factitious group (i.e., known groups comparison) would be ideal. Rogers (2018) indicates known-groups designs are more rigorous, and in general, apply more stringent criteria than partial criterion designs. However, with the current general lack of insight into factitious presentations and supposed rarity of cases, obtaining a known factitious group may prove challenging. Nonetheless, simulation designs have the advantage of internal validity, but external validity from known-group comparisons would certainly complement them.

Simulation research on response styles underscores important methodological concerns (Rogers, 2018). Providing participants with an external, albeit nominal incentive for their engaged participation is important to ensure motivation for successful simulation (Rogers, 2018). Much like concerns raised by Rogers and colleagues (2005), factitious participants in the current study were given monetary compensation, more analogous to malingering (i.e., external incentive), because an internal incentive (e.g. special attention by a therapist) is obviously not feasible. However, it is likely many genuine factitious patients actually receive some external benefits in addition to their primary internal motivations (e.g., decreased responsibilities at work or home; Rogers et al., 2005). As Cunnien (1997) argues, external gains should not, by themselves, exclude the presence of factitious motivations.

The factitious simulation instructions were adapted from the scenarios used in Rogers et al. (2005) and are largely based on conceptual FPP elements delineated in Velsor and Rogers (2019). While the instructions for the simulation conditions appear to be clear, comprehensive, and motivating (Merckelbach, Smeets, & Jelicic, 2009), it was difficult to know what

information to include in the FACT simulation scenario as only the second study in this area. Being primarily based on one conceptual article, it is difficult to ensure all appropriate elements were included to motivate individuals to assume a factitious role. In effort to match the moderate level of insight of factitious patients (Rogers et al., 2005), simulation instructions avoided diagnostic jargon or clinical interpretations. Additional research with factitious simulation designs may better capture the vast "intrapsychic dynamics" involved with factitious presentations (Rogers et al., 2005, p. 33).

Future Directions

The continuing conceptual and diagnostic ambiguities of factitious presentations clearly deserves more scholarly attention. Challenges in the assessment of factitious disorder continue, in combination with DSM-5 shifts away from understanding the underlying motivation in favor of more objective measures (Yates et al., 2018). While this goal for increased objectivity is commendable, it certainly contributes to a lack of focus on psychological presentations.

As demonstrated considerably throughout this dissertation, there may be far-reaching, real-world implications if practitioners are not well prepared to actively consider rival hypotheses, such as misclassification of response styles (Rogers et al., 2005; Velsor & Rogers, 2019). Thus, additional research efforts should be placed on the differentiation of malingered and factitious presentations. To illustrate, a hypothetical scenario study in which practitioners are given ambiguous information about patients with factitious and malingered presentations and asked for their conclusions may be especially illuminating. Studies such as these would provide excellent insight into the general awareness and consensus about factious response styles among providers. Moreover, future research may wish to examine biases in determining response styles and common misconceptions of factitious presentations among treatment providers. This

information can be then used to inform the larger community of mental health practitioners, so professionals may be better able to consider alternate hypotheses to malingering.

The feasibility of the DSM-IV and DSM-5 nosological models of factitious disorders could be tested directly. Participants would include health care providers, such as physicians, who are expected to encounter patients with factitious disorders. Scenarios could be taken from existing case studies with confirmed outcomes. With DSM-IV inclusion criteria, the adoption of a sick role and other characteristics would be featured. For the DSM-5, providers would be provided with unexpected, likely contradictory "objective" findings. In both cases, their diagnostic conclusions would be evaluated against the confirmed outcomes. Because of its claimed objectivity, DSM-5 might appear to be obviously superior. On reflection, however, health care providers are faced with challenging alternatives: laboratory mistakes, accidental errors (e.g., ingesting the wrong dosage or medication), factitious disorder by proxy, and even the possibility of malingering.

Refinement and improvements to the I-SIP represent an additional consideration for future research. The current results indicate the FPP subscales could benefit from revision. The creation of additional items may assist with better capturing the subscale content, and thus improve alpha coefficients. Theory-driven item creation and the pilot testing of items would likely increase subscale homogeneity. As detailed by Rosas and Camphausen (2007), methods such as concept mapping (i.e., specifying conceptual frameworks) can assist with the clear conceptual grounding of scale development. Additionally, reorganizing Treatment Needs into 2-3 discrete subscales may increase scale homogeneity and improve interpretations.

Be design, Factitious Disorder Imposed on Another (FDIOA), formerly known as Factitious Disorder by Proxy, is not addressed in the current study. Future research may wish to

develop a different version of the I-SIP for FDIOA cases, with a separate collateral version given to the person presented as impaired, injured, or ill (i.e., the victim). A collateral version would allow for unique perspectives of perceived motivations and could possibly assist with informing treatment (e.g., consequences of factitious behavior, primary motivations, etc). Because many of the I-SIP items are directly involving one's personal internal motivations for feigning, an FDIOA version would likely require the development of entirely new items. Taken together, future avenues for examining factitious psychological presentations could be extremely conducive to expanding the literature and contributing a greater appreciation and understanding of FPPs.

Concluding Thoughts

This dissertation represents the first systematic effort to investigate an empirical approach that discriminates FPP from malingering, with very encouraging practical implications for differentiating closely-related feigned response styles. Despite the challenges of operationalizing factious motivations, the results provide initial, yet solid support that FPP as a dimensional construct is clearly measureable. It is hoped that the clinical applicability of applying FPPs dimensionally will continue to be researched.

The current study also emphasizes how ratio scores might provide a sophisticated measure of clinical constructs (see Rogers et al., 2005), particularly with dynamic relationships, such as response styles. Considering the proportionality of constructs, rather than a single -point cut score, provides an opportunity to examine constructs directly in relationship to each other. In the current dissertation, examinees in malingering and factitious conditions responded in dramatically different and conceptually relevant ways, which can be further explored with FPPs and other response styles.

APPENDIX A

MEASURES AND DATA COLLECTION DOCUMENTS

A.1: Demographic Information Questionaire

Current Date and Time:

Gender:

How old are you?

What is your ethnicity?

What is your 1st Language?

Highest grade completed?

What is your marital status?

What is your occupation?

How many times have you been hospitalized for psychiatric reasons?

A.2: Factitious Simulation Scenario

- *Unmet needs*: You admire your current psychologist, Dr. Jones, and her therapeutic abilities very much. However, you have become frustrated that the clinic only allows 30-minute sessions every other week. She is the only psychologist that truly understands you. You feel accepted and cared for when you are with her and nothing fulfills you like seeing Dr. Jones and being involved at the mental health clinic.

- *Intensive treatment*: You recently learned that Dr. Jones provides intensive outpatient treatment with 2-3 sessions every week. Though, this is only for clients in need of more care. If only you could be seen daily. You decide it is up to you convince her of your urgent needs to be a part of this special program.

- *Your goal:* You try to help Dr. Jones understand:

1. Your urgent psychological needs and that she is the only person to truly help you.

2. That she is much more than a doctor to you.

3. That you would do anything, even exaggerate your symptoms, to get the treatment you need. This is the only way to show Dr. Jones how much you really need her help. But, you need to make it believable or the psychologist will know you are exaggerating.

A.3: Malingering Simulation Scenario

- *Your job is in jeopardy*: You know that more jobs will be cut. As a highly paid professional, your career is on the chopping block. You fear your job will be cut next. You want a way out. If you could appear disabled, you could secure your financial future, and avoid being fired. You would also no longer have to work. You deserve some rewards at their expense after all your work. Plus, you have your private disability insurance that would pay you generously.

- *Your solution*: Naturally, you are stressed and upset by your current circumstances, but are not really disabled. If you are going to succeed, you have to prove that you are unable to function at your profession (i.e., 100% disabled).

- *Your goal*: You need to look severely disabled and unable to function at work. But, you need to make it believable or the psychologist will know you are cheating. Overplay your psychological symptoms so you are able to prove you are unfit to work, but are still able to get your disability claim.

A.4: Manipulation Check

1. What were your instructions throughout the study?

   ____ Correct ____ Incorrect

   *Make sure participant states they first answered surveys honestly and then assumed the role of the person in the scenario the second time they answered surveys.

2. What do you remember about the scenario you read (FPP)?

____ Admire psychologist, Dr. Jones

____ Want intensive outpatient treatment

____ Need to show Dr. Jones how much you need her help

What do you remember about the scenario you read (Malingering)?

____ Job is in jeopardy

____ Appear disabled

____ Deserve rewards through private disability insurance

3. What were you supposed to be doing (FPP)?

____ Exaggerate symptoms to show how much you need treatment

____ Show Dr. Jones she is the only one who can help you/more than a doctor to you

____ Trying to beat the tests

What were you supposed to be doing (Malingering)?

____ Trying to appear disabled/unable to work

____ Overplay psychological symptoms

____ Trying to beat the tests

Compliance: Did you follow your instructions for the second half?

____ Yes ____ No

4. If yes – How would you describe your effort at following the instructions on a scale from 1 to 10, where 1 means you did not try at all and 10 means you tried your hardest?

1 2 3 4 5 6 7 8 9 10

5. Do you think you were successful at convincing the psychologist that you were in need of her help (FPP)/or that you were disabled and unable to work (MAL)?

____ Yes ____ No ____Uncertain

APPENDIX B

SUPPLEMENTAL TABLES

Table B.1

*Intercorrelations of the I-SIP and **WAI** under **Honest** Conditions: FACT Group (above the Diagonal) and MAL group (below the Diagonal)*

	I-SIP FPP	I-SIP ASC	WAI Total	WAI Bond	WAI Task	WAI Goal
I-SIP FPP		.23	**.18**	**.09**	**.17**	**.23**
I-SIP ASC	-.06		-.24	-.18	-.26	-.22
WAI Total	**.08**	-.48**		.81**	.94***	.94**
WAI Bond	**.17**	-.25	.80**		.65**	.63**
WAI Task	**.02**	-.37*	.88**	.58**		.86**
WAI Goal	**.04**	-.56**	.90**	.58***	.66**	

Note. Convergent validity correlations are bolded. Discriminant validity correlations are underlined. For significance, * $p < .05$; ** $p < .01$; *** $p < .001$.

Table B.2

*Intercorrelations of the I-SIP and **WAI** under **Simulated** Conditions: FACT Group (above the Diagonal) and MAL group (below the Diagonal)*

	I-SIP FPP	I-SIP ASC	WAI Total	WAI Bond	WAI Task	WAI Goal
I-SIP FPP		.19	**.28**	**.20**	**.21**	**.33***
I-SIP ASC	.59***		-.35**	-.39**	-.31*	-.28
WAI Total	**-.17**	-.41**		.87***	.94***	.94***
WAI Bond	**-.13**	-.40**	.96***		.75***	.72***
WAI Task	**-.22**	-.42**	.97***	.90***		.82***
WAI Goal	**-.14**	-.36*	.97***	.88***	.89***	

Note. Convergent validity correlations are bolded. Discriminant validity correlations are underlined. For significance, * $p < .05$; ** $p < .01$; *** $p < .001$.

Table B.3

*Intercorrelations of the I-SIP FPP Scale and **IOS** under **Honest** Conditions: FACT Group (above the Diagonal) and MAL Group (below the Diagonal)*

	I-SIP FPP	I-SIP ASC	IOS Total	IOS Emotional	IOS Attention	IOS Pos. Stimulation	IOS Social Comp.
I-SIP FPP		.23	**.50****	**.13**	**.37***	**.56****	**.28**
I-SIP ASC	-.06		.05	-.27	.38*	-.08	.13
IOS Total	**.39***	-.30		.63**	.66**	.88**	.70**
IOS Emotional	**.30**	-.43**	.78**		.05	.52**	.31
IOS Attention	**.38***	.15	.63**	.23		.39*	.44**
IOS Pos. Stimulation	**.38***	-.32*	.93**	.65**	.48*		.45**
IOS Social Comparison	**-.07**	-.29	.53**	.40*	.02	.41**	

Note. Convergent validity correlations are bolded. Discriminant validity correlations are underlined. For significance, * $p < .05$; ** $p < .01$; *** $p < .001$.

Table B.4

*Intercorrelations of the I-SIP FPP Scale and **IOS** under **Simulated** Conditions: FACT Group (above the Diagonal) and MAL Group (below the Diagonal)*

	I-SIP FPP	I-SIP ASC	IOS Total	IOS Emotional	IOS Attention	IOS Pos. Stimulation	IOS Social Comp.
I-SIP FPP		.19	**-.12**	**-.13**	**-.08**	**-.09**	**-.11**
I-SIP ASC	.59**		-.43**	-.52**	-.09	-.43**	-.48**
IOS Total	**.08**	-.13		.76***	.72***	.91***	.91***
IOS Emotional	**.04**	-.13	.92***		.19	.81***	.65***
IOS Attention	**.07**	.05	.76***	.54***		.43**	.64***

	I-SIP FPP	I-SIP ASC	IOS Total	IOS Emotional	IOS Attention	IOS Pos. Stimulation	IOS Social Comp.
IOS Pos. Stimulation	**.12**	-.21	.92***	.85***	.52**		.78***
IOS Social Comparison	**.02**	-.15	.90***	.82***	.66***	.74***	

Note. Convergent validity correlations are bolded. Discriminant validity correlations are underlined. For significance, * $p < .05$; ** $p < .01$; *** $p < .001$.

Table B.5

*Intercorrelations of the I-SIPASC Scale and **LSRP** under **Honest** Conditions: FACT Group (above the Diagonal) and MAL Group (below the Diagonal)*

	I-SIP ASC	I-SIP FPP	LSRP Total	LSRP Primary	LSRP Secondary
I-SIP ASC		.23	**.77****	**.85****	**.55****
I-SIP FPP	-.06		.40*	.35*	.39*
LSRP Total	**.89****	.03		.95**	.92**
LSRP Primary	**.88****	-.08	.97**		.76**
LSRP Secondary	**.81*****	.23	.94**	.84**	

Note. Convergent validity correlations are bolded. Discriminant validity correlations are underlined. For significance, * $p < .05$; ** $p < .01$; *** $p < .001$.

Table B.6

*Intercorrelations of the I-SIPASC Scale and **LSRP** under **Simulated** Conditions: for FACT Simulation Group (above the Diagonal) and MAL Simulation Group (below the Diagonal)*

	I-SIP ASC	I-SIP FPP	LSRP Total	LSRP Primary	LSRP Secondary
I-SIP ASC		.19	**.71*****	**.80*****	**.42****

	I-SIP ASC	I-SIP FPP	LSRP Total	LSRP Primary	LSRP Secondary
I-SIP FPP	.59**		.07	.11	-.01
LSRP Total	**.87*** **	.44**		.96***	.87***
LSRP Primary	**.88*** **	.52**	.97***		.70***
LSRP Secondary	**.72*** **	.24	.91***	.78***	

Note. Convergent validity correlations are bolded. Discriminant validity correlations are underlined. For significance, * $p < .05$; ** $p < .01$; *** $p < .001$.

Table B.7

*Intercorrelations of the I-SIP **FPP subscales** and **WAI** for FACT Simulation Group (above the Diagonal) and MAL Simulation group (below the Diagonal) under **Honest** Conditions*

	I-SIP FPP	I-SIP Cost-Benefit	I-SIP Rel. with Providers	I-SIP Patient Role	I-SIP ASC	WAI Total	WAI Bond	WAI Task	WAI Goal
I-SIP FPP		.90***	.88***	.58***	.23	**.19**	**.09**	**.17**	**.23**
I-SIP Cost-Benefit	.94***		.65**	.49**	.22	**.06**	**.01**	**-.01**	**.12**
I-SIP Rel. with Providers	.89***	.79**		.46**	.02	**.28**	**.11**	**.31**	**.30**
I-SIP Patient Role	.55**	.51**	.46**		.39*	**.20**	**.15**	**.15**	**.22**
I-SIP ASC	-.06.	-.18	-.21	.09		-.24	-.18	-.26	-.22
WAI Total	**.08**	**.08**	**.19**	**-.07**	-.48**		.81**	.94***	.63**
WAI Bond	**.17**	**.17**	**.26**	**.18**	-.25	.80**		.65**	.63**
WAI Task	**.02**	**.04**	**.11**	**-.15**	-.37**	.88**	.58**		.86**
WAI Goal	**.04**	**.02**	**.15**	**-.14**	-.56**	.90**	.58**	.66**	

Note. Convergent validity correlations are bolded. Discriminant validity correlations are underlined. For significance, * $p < .05$; ** $p < .01$; *** $p < .001$.

Table B.8

*Intercorrelations of the I-SIP **FPP subscales** and **WAI** for FACT Simulation Group (above the Diagonal) and MAL Simulation group (below the Diagonal) under **Simulated** Conditions*

	I-SIP FPP	I-SIP Cost-Benefit	I-SIP Rel. with Providers	I-SIP Patient Role	I-SIP ASC	WAI Total	WAI Bond	WAI Task	WAI Goal
I-SIP FPP		.74***	.80***	.60***	.19	**.28**	**.20**	**.21**	**.33***
I-SIP Cost-Benefit	.91***		.40**	.48***	-.01	**.09**	**-.01**	**.02**	**.18**
I-SIP Rel. with Providers	.89***	.76***		.35*	.10	**.24**	**.21**	**.14**	**.30**
I-SIP Patient Role	.87***	.79***	.71***		-.14	**.34***	**.41****	**.35***	**.22**
I-SIP ASC	.59***	.52**	.36*	.58***		-.35**	-.39**	-.31*	-.28
WAI Total	**-.17**	**-.05**	**.06**	**-.22**	-.41**		.87***	.94***	.94***
WAI Bond	**-.13**	**-.04**	**.11**	**-.19**	-.40**	.96***		.75***	.72***
WAI Task	**-.22**	**-.06**	**.01**	**-.27**	-.42**	.97***	.90***		.82***
WAI Goal	**-.14**	**-.03**	**.08**	**-.17**	-.36*	.97***	.88***	.89***	

Note. Convergent validity correlations are bolded. Discriminant validity correlations are underlined. For significance, * $p < .05$; ** $p < .01$; *** $p < .001$.

Table B.9

*Intercorrelations of the I-SIP **FPP subscales** and **IOS** for FACT Simulation Group (above the Diagonal) and MAL Simulation Group (below the Diagonal) under **Honest** Conditions*

	I-SIP FPP	I-SIP Cost-Benefit	I-SIP Rel. with Providers	I-SIP Patient Role	I-SIP ASC	IOS Total	IOS Emotional	IOS Attention	IOS Pos. Stim.	IOS Social Comp.
I-SIP FPP		.90***	.88***	.58***	.23	**.50****	**.13**	**.37***	**.56****	**.28**

	I-SIP FPP	I-SIP Cost-Benefit	I-SIP Rel. with Providers	I-SIP Patient Role	I-SIP ASC	IOS Total	IOS Emotional	IOS Attention	IOS Pos. Stim.	IOS Social Comp.
I-SIP Cost-Benefit	.94***		.65**	.49**	.22	**.55****	**.21**	**.41****	**.61****	**.23**
I-SIP Rel. with Providers	.89***	.79**		.46**	.02	**.36***	**.05**	**.26**	**.41****	**.25**
I-SIP Patient Role	.55**	.51**	.46**		39*	**.32***	**-.03**	**.31**	**.24**	**.46****
I-SIP ASC	-.06.	-.18	-.21	.09		.05	-.27	.38*	-.08	.13
IOS Total	**.39***	**.31**	**.46****	**.12**	-.30		.63**	.66**	.88**	.70**
IOS Emotional	**.30**	**.30**	**.40****	**-.05**	-.43**	.78**		.05	.52**	.31
IOS Attention	**.38***	**.25**	**.33***	**.31**	.15	.63**	.23		.39*	.44**
IOS Pos. Stim.	**.32***	**.30**	**.48****	**.11**	-.32*	.93**	.65**	.48**		.45**
IOS Social Comp.	**-.07**	**-.05**	**-.03**	**-.07**	-.29	.53**	.40*	.02	.41**	

Note. Convergent validity correlations are bolded. Discriminant validity correlations are underlined. For significance, * $p < .05$; ** $p < .01$; *** $p < .001$.

Table B.10

*Intercorrelations of the I-SIP **FPP subscales** and **IOS** for FACT Simulation Group (above the Diagonal) and MAL Simulation Group (below the Diagonal) under **Simulated** Conditions*

	I-SIP FPP	I-SIP Cost-Benefit	I-SIP Rel. with Providers	I-SIP Patient Role	I-SIP ASC	IOS Total	IOS Emotional	IOS Attention	IOS Pos. Stim.	IOS Social Comp.
I-SIP FPP		.74***	.80***	.60***	.19	**-.12**	**-.13**	**-.08**	**-.09**	**-.11**
I-SIP Cost-Benefit	.91***		.40**	.48***	-.01	**-.13**	**-.30**	**.01**	**-.10**	**-.08**
I-SIP Rel. with Providers	.89***	.76***		.35*	.10	**.02**	**.09**	**.01**	**.01**	**-.02**

	I-SIP FPP	I-SIP Cost-Benefit	I-SIP Rel. with Providers	I-SIP Patient Role	I-SIP ASC	IOS Total	IOS Emotional	IOS Attention	IOS Pos. Stim.	IOS Social Comp.
I-SIP Patient Role	.87***	.79***	.71***		-.14	**-.01**	**-.02**	**-.13**	**.12**	**-.02**
I-SIP ASC	.59***	.52**	.36*	.58***		-.43**	-.52***	-.09	-.43**	-.48**
IOS Total	**.08**	**.18**	**.20**	**.14**	-.13		.76***	.72***	.91***	.91***
IOS Emotional	**.04**	**.13**	**.16**	**.12**	-.13	.92***		.19	.81***	.65***
IOS Attention	**.07**	**.13**	**.10**	**.11**	.05	.76***	.54***		.43**	.64***
IOS Pos. Stim.	**.12**	**.22**	**.27**	**.14**	-.21	.92***	.85***	.52**		.78***
IOS Social Comp.	**.02**	**.12**	**.14**	**.09**	-.15	.90***	.82***	.66***	.74***	

Note. Convergent validity correlations are bolded. Discriminant validity correlations are underlined. For significance, * $p < .05$; ** $p < .01$; *** $p < .001$.

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